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Defining the Development and Meaning of a Commemoration Complex: The Los Pisos Courtyard, La Milpa, Belize

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Defining the Development and Meaning of a Commemoration Complex: The Los Pisos Courtyard, La Milpa, Belize

by

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Dedication

To my beautiful daughter Aminta!

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Defining the Development and Meaning of a Commemoration Complex: The Los Pisos Courtyard, La Milpa, Belize

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The current research takes place at La Milpa, the third largest Maya center in Belize, Central America. The primary aim of this research was to investigate the development and function of "palace" courtyard complexes within Maya centers. More specifically, this research chronicles transformations in the built environment and activities taking place, particularly rituals, in the Los Pisos Courtyard from the Late Preclassic to the Late/Terminal Classic periods (400 B.C. –A.D. 900). Consequently, an attempt to correlate shifts in the built environment with changing sociopolitical fields and ritual practice was engaged. The role of agents in the construction and use of the built environment is of particular importance to the study of Maya monumental architecture. Therefore, the incorporation of social theories of structure and agency were employed in order to create a dialogue between the built environment and the people of La Milpa.

This research project explored how the Los Pisos Courtyard developed in concert with the central precinct and its role within the La Milpa community. Excavations

conducted by the author coupled with LaMAP (directed by Drs. Norman Hammond and Gair Tourtellot) excavations revealed that during the Late Preclassic period the Los Pisos Courtyard and Plaza A were cleared and leveled as the central precinct began to take form. During this time it is argued that the 3 m natural hillock on which the Los Pisos Courtyard rests was an open space used for ritual activity and community engagement. By the Early Classic period, a massive construction program occurred and the courtyard began to take its present configuration.

The most significant change occurred during the Late/Terminal Classic period, when colossal construction efforts took hold of the entire site. Through monumentality and verticality, the Los Pisos Courtyard became an exclusive and segregated space designated for the most important inhabitants of La Milpa. Although the Los Pisos Courtyard became an exclusive locale, it may have remained an important symbol that served as a mnemonic device used to invoke memories that legitimated the power and authority of the La Milpa elite.

Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction

Architecture is one of the most ubiquitous archaeological remains, and perhaps some of the most impressive vestiges left by past societies. The study of the built environment, the product of human building activity and/or alteration to the natural environment, has been a mainstay in anthropological research since the 19th century, when built forms were used in theories concerning the evolutionary status of premodern societies (Lawrence and Low 1990). Architecture, a category within built forms, is "often monumental, characteristic of civilizations, and self-consciously designed and built by specialists" (Lawrence and Low 1990:454). While there are multiple approaches to the archaeological study of Maya architecture providing insight into the behavior of the ancient Maya (See Miller 2008), in many cases architecture is viewed as a static backdrop for human activities. More recently, the incorporation of social theories of structure and agency in archaeology has stimulated a productive dialogue and a more relevant method for investigating the built environment (Dobres and Robb 2000; Gellespie 2001; Joyce 2004; Joyce and Lopiparo 2005; Love 1999; Pauketat 2000; Saitta 1994; Sewell 1992; Varien and Potter 2008; Yant 2011).

The role of agents in the construction and use of the built environment is of paramount importance to the study of Maya monumental architecture. More specifically, how such constructions were used to express and shape the constitutions, and identities of agents, while simultaneously controlling social interaction in pursuit of specific goals (Rapoport 1984:64). The manipulation of the built environment and the activities carried out within it can transform a neutral space into "territories" or concrete manifestations,

which encode messages that guide behavior, reinforce social relations, and shape social reproduction (Rapoport 1984:57). Such sets of action have been translated into "royal strategy," "a deliberate set of linked policies, culturally conditioned and historically variable, that were systematically applied by monarchs to their subjects, allies, and enemies" (Houston *et al*. 2003:215).

In Maya society, certain architectural forms such as platforms, plazas, temples and "palace" type buildings served as stages for public ceremonies and rituals. It is believed that such built environments were constructed, transformed, and used by the elite segment of society to create, maintain and legitimize their position in society. These built environments produced and acquired cultural expressions that greatly influenced social relations. The built environment is a setting encoded with both a group's lifeway and cognitive schemata symbols (Rapoport 1984:51). Consequently, such built forms create a recursive milieu by shaping individuals and their social relations.

The present research examines the history and development of a "palatial" complex located in the ceremonial precinct of La Milpa, Belize (Figure 1.1). Range "palace" structures are often part of a cluster or complex comprised of a variety of buildings. Complexes such as the Los Pisos Courtyard, often located within site centers, are also identified as courtyard groups with long range structures placing them in the "palace-type" architectural category. Accordingly, this research attempts to draw a parallel between the built environment and transformations in sociopolitical relations. More specifically, the transformation from an open and public ritual arena that structured a community identity predicated on social cohesion, to a closed and circumscribed ritual

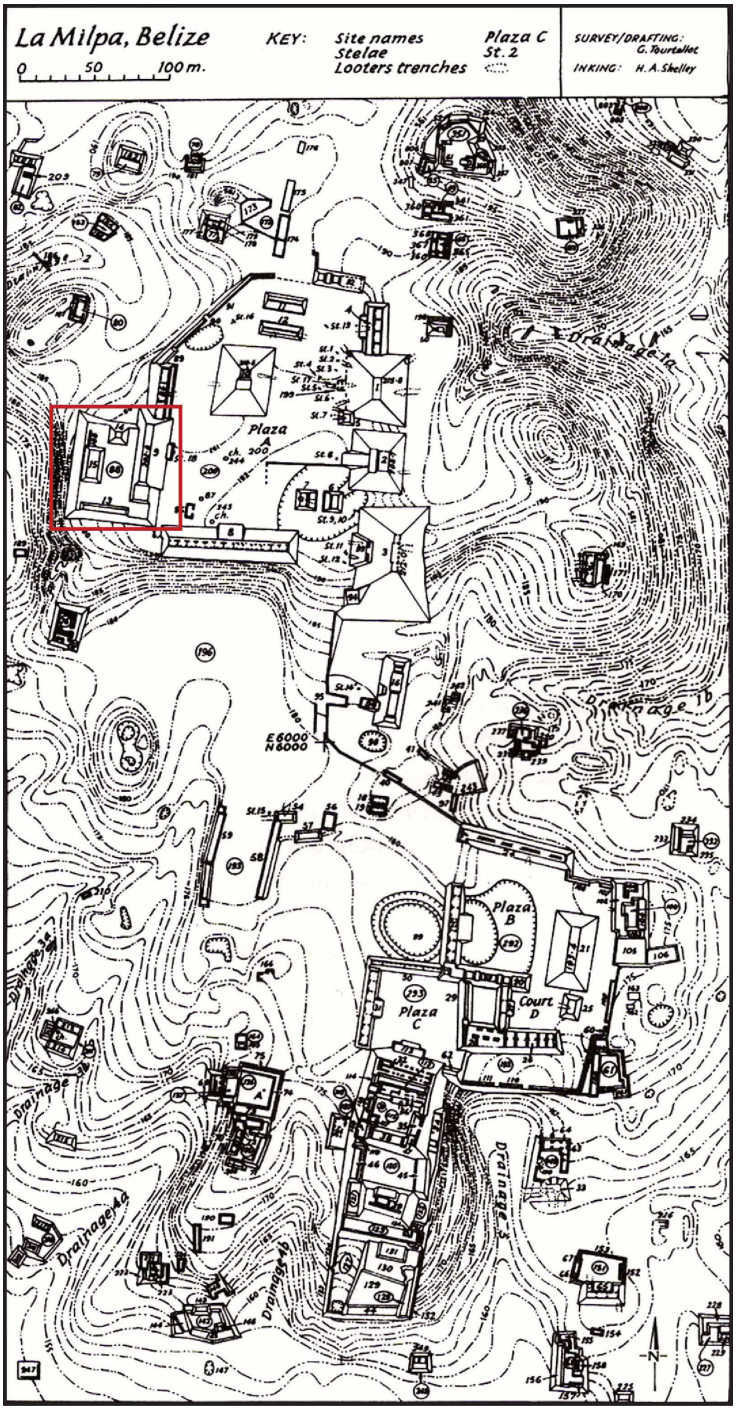

Figure 1.1. La Milpa, Belize, with the Los Pisos Courtyard demarcated (From Hammond and Tourtellot 2004, Figure 13.1).

space, both which were used to expand power and authority and create asymmetrical relations between rulers and the ruled. Each of these constructed spaces and the activities performed within them (public rituals and esoteric/private rituals) influenced social practice and served as the physical manifestations of social reproduction and transformation of the community at the polity level and the individual level as well.

Fundamental concepts regarding the processes involved in the development and function of the architectural complex referred to as the Los Pisos Courtyard (Figure 1.1) were addressed before exploring the ideological meanings associated with such built complexes. First and foremost, this investigation was concerned with establishing the chronology of the architectural complex under investigation. Secondly, although discussions for probable functions of built forms in some regards may be considered prosaic; they are a fundamental step for exploring questions pertaining to the influence of the built environment on social relations, social production and reproduction and the transformation of society. Therefore a significant component of this research concentrates on defining the function of "palace-type" architecture and identifying how such architectonic complexes development through time.

During the Late Preclassic period (400 B.C. – A.D. 250) the central core of La Milpa began taking form on a 180 masl contour plane (Tourtellot *et al.* 1999). Although the region consists of higher altitudes over 220 masl, the La Milpa Centre Hill was chosen for its broadness and north-south alignments that afforded the north-south site orientation (Tourtellot *et al*. 1999). La Milpa's North Group (Plaza A), Plaza B, and the Tzaman Acropolis were constructed on the large peaks of the La Milpa Centre Hill.

Within these large peaks are natural hillocks. Weiss-Krejci (2011:109-110) discusses the use of such hillocks for the construction of various groups at the site of Tikal, in particular Group 5D-2, "which developed around a *chultun* and incorporated the dead bodies of the early Tikal kings." Weiss-Krejci (2011:111) argues that the central location of Chultun 6, and the subsequent construction history associated with this feature support the importance and prime role Chultun 6 played in the development of the early North Acropolis.

Sagebiel (2005) proposes that Plaza A and the Los Pisos Courtyard were concurrently developed during the Late Preclassic period, probably in the form of clearing and leveling. There is evidence of Late Preclassic architecture within Temple 1 and Str. 5, suggesting that the central precinct was in all likelihood taking form and the Los Pisos Courtyard was part of this ritual landscape. The Los Pisos Courtyard was constructed on a natural hillock (the Los Pisos Hillock) that was approximately 3 m above the bedrock surface in Plaza A during Late Preclassic times. The earliest and most characteristic feature on this hillock is Chultun 1 and associated Burial 1 (see Chapter 5). While, it is not clear if other architectural elements were present and related to this chultun as is the case for Tikal, I argue that such hillocks may have functioned as natural platforms for public rituals.

I propose that, during the Late Preclassic period, the ritual interment and veneration of an important member of the La Milpa community, Burial 1, not only created a powerful place; it may have also consolidated social and political relations between leaders and the community, while simultaneously cultivating the community

identity of Milperos through public ritual. It was during such mortuary rituals that leading household members laid claim to "tangible and intangible property attached to the person of the deceased" (Gillespie 2001: 96). I also argue, based on the location, burial and post-burial treatment of this individual, that the individual may have been transformed to an important ancestor of the La Milpa community. Perhaps serving as an "anchoring ancestor" or the *K' uk'* for La Milpa. Such a process is present at Palenque, e.g., Balam-K'uk' and on Copan's Hieroglyphic Stairway (the kings depicted on the stairway) (Fash 2002; Freidel 1992:123-125; Gillespie 2001: 97).

The subsequent construction programs of the Early Classic and Late/Terminal Classic periods altered this space from a public ritual space that was visually accessible to the larger community, to one that was visually closed off and eventually transformed to an exclusive space for the elite. Consequently, sociopolitical relations between the rulers and the ruled drastically changed through the manipulation and maintenance of central cultural symbols, in this case the appropriation of space, ancestors and memories. Monumentality and exclusivity created differential access to this space and the activities conducted therein created authority which maintained order, legitimacy and wealth (see Buren and Richards 2000). Through time this space continued to be a compelling political and social stage, however designated for a circumscribed audience —Maya rulers and elites during the Classic period. Nevertheless, the Los Pisos Courtyard may have remained a central symbol within Plaza A, where large community rituals and celebrations span across all social groups of La Milpa (see Baines and Yoffee 2000).

This research mostly relies on the actions of elites based on archaeological correlates, e.g., architecture, elite rituals, location on the landscape and certain artifact classes. Smith (2003:25) argues that, "elite dominated explanatory models for urban organization and growth is inadequate: elite actions and decisions can affect, but not fundamentally cause, urban transformations without the active participation of the majority of city-dwellers." For Maya society, Fash (2002) argues that religious ideology motivated the rulers, nobles, and commoners who participated in the edification of their cities, states and civilization. Barrett (1991:5) states, "It is participants who, by recreating a ritual, write into existence the presence of their own authors (gods, spirits, and ancestors)." Therefore, how and why non-elite groups participated and/or engaged, in elite endeavors are a crucial component to this research; and is explored through the built environment and ritual (see Chapter 2). Moreover, in Maya society, as in most non-capitalist societies, political, social, and economic practice are interwoven within the cosmological framework, therefore it becomes nearly impossible to work within one aspect of Maya society (Mauss 2001; McAnany 2010).

On a larger scale, this study explores the early formation and development of the third largest Maya city in Belize–La Milpa. More specifically, the transformation from village to urban center during which social, religious and political relations were reproduced, transformed and institutionalized. The ideologies of order, legitimacy and eventually wealth play fundamental roles during the transformation from village to early state (Buren and Richards 2000). These are fundamental principles of hierarchization, particularly the restriction and display of certain kinds of wealth, and are the chief

institutions of legitimacy that maintain the disparity between rulers and the ruled (Baines and Yoffee 2000). Therefore, this investigation briefly addresses leadership roles in concert with the transformation of the built environment, for example the transition from community ritual leader to divine ruler. The latter is seen and accepted as the mediator between society, the gods and the privileged dead–the maintenance of the cosmos (Buren and Richards 2000).

The remaining section focuses on the historical and contemporary frameworks concerning the function and use of "palace-type" architecture. The two fundamental architectural categories under discussion are long, multi-chamber structures, typically called "palace-type structures" or range structures, and "palace" architectural complexes. The term "palace" is placed in quotations to avoid the function(s) associated with this word and predetermined function(s). In the present research it is used simply as a category with which many are familiar. The words "palace" and "range" structure are used interchangeably to identify the same type of architectural building. However, "Range" structure is a commonly used term in place of "palace" to avoid any functional inferences and expectations. Additionally, the term "palace complex" is used interchangeably to discuss architectural groups/complexes that include large, elaborate, "palace-type structures."

Maya "Palace-Type Structures": Early Historical Developments

The archaeology of monumental architecture, particularly "palatial" architecture, in Maya cities has played an integral role in defining Maya civilization. The

investigation of architecture within urban centers in the Maya Lowlands has held great importance to the understanding of the sociopolitical, ideological and economic organization of Maya society. The following section addresses some of the major conceptual developments concerning "palace-type structures," this includes research methods and interpretations from the end of the 19th century to the beginning of the 21st century.

Although exploration and research of monumental architecture within Maya cities spans more than 100 years, morphological form and scholars' conjecture dominates interpretations of architectural function and meaning. Additionally, incipient interpretations and architectural classifications concerning the function and meaning of the built environment were inherently based on European correlates particularly for "palace-type structures." Fortunately the conjunctive approach (Taylor 1948), the incorporation of anthropological theory, iconography, epigraphy, ethnohistory, and ethnography has fostered new methods and interpretations for the investigation of monumental architecture in Maya cities.

It was not until the year 1840 that the world was first introduced to the splendor of Maya civilization. Interest in Maya society was partly spurred by the grandeur and monumentality of the architecture, particularly those vestiges located within large cities. It was during this time that a civilization located in the New World could be compared with the Classical complexity of Greece and Rome. American explorer John Lloyd Stephens and Frederick Catherwood, an English architect, published four volumes that documented and illustrated magnificent abandoned stone cities in the jungles of Mexico,

Guatemala, and Honduras. It was Stephens who determined that *in situ* but unknown indigenous groups were responsible for the origins of these magnificent cities (Stephens [1941] 1988:278). Prior to Stephens and Catherwood, Spanish conquistadores and religious figures created ethnohistorical documents describing Maya architecture. Spaniard Hernán Cortes was one of the first to suggest that the Maya palaces in the Yucatan Peninsula were the residences of the elite class:

> There are houses belonging to men of rank which are very cool and have many rooms, for we have seen as many as five courtyards in a single house, and the rooms around them very well laid out, each man having a private room…(Pagden 1986:30-31).

Bishop Diego De Landa also described and illustrated Maya palaces in the Yucatan Peninsula. Landa observed that palaces belonging to the lords, priests and most important members of society were centrally located and made of masonry construction. While dwellings in the peripheral area, were made of perishable materials and housed the not-so-important members of society (Tozzer 1941). Great cities such as Copan, Altar de Sacrificios, Yaxha, Naranjo and sites in Yucatan were investigated by Alfred P. Maudslay, Teobert Maler, and J. E .S. Thompson as early as 1885. This marked the beginning of a surge in scholarly interest in Maya centers, such as Copan, Tikal, and Quirigua. However, most of these early inquiries were centered on the use and function of individual structures based on size, location, platform height and otherwise very limited observations (Becker 1971).

Much of the work produced during this phase, took place within urban centers. This was mostly due to their iconic appeal and the preoccupation with data gathering for

defining the components of these architectural clusters—Maya cities. During this research phase site centers or site cores were defined "as dense clusters of monumental architecture comprising of high pyramids, open plazas, and the extensive multi-room buildings glossed as palaces" (Traxler 2004:336). Maler (1895, 1902) working in the Yucatan Peninsula and Campeche, Mexico was among the first to describe the stone masonry structures as "palaces," particularly those that carried elaborate monumental sculpture. It was during this early phase, that palaces and at times smaller structures were defined by a set of criteria; however, these categories always appeared to conflate architectural form and use.

Maya "Palace-Type Structures": Early Academic Endeavors 1910-1945

Much of the fieldwork during this phase was conducted under the auspices of governmental institutions. Research was aimed at establishing a chronology for Maya society and a ceramic typology, as was done in the American Southwest by Kidder (1914). In 1910 Morley evaluated structures having religious functions at the site of Uxmal (1910). Morley refers to this new structure type as a "temple," "sanctuary," and "supreme sanctuary." It was during this time that Maler and Tozzer made important contributions by defining the organization of Maya cities. In 1911 A. Tozzer and T. Maler from the Peabody Museum studied and described the Maya city of Tikal and documented the architectural elements throughout the city of Tikal, particularly palace architecture. Spatial divisions concerning use and function of cities based on architectural manifestations were identified.

Tozzer (1911:95, 120) defined the North Acropolis as the ceremonial center due to the presence of large temple structures, while the Central Acropolis was considered the residential area for religious figures/priests. It is interesting to note that concepts of city planning described by Tozzer (1911) continue to be central to contemporary interpretations of organization patterns in Maya cities. The close spatial association between "palace-type" buildings and buildings of worship led Tozzer (1911) to conclude that "palace-type" buildings must have housed priests. The center of the city is described as having structures with multiple rooms and entrances, one to two stories high, arranged in a courtyard setting with two rows of parallel chambers, benches, niches (wall depressions), and transverse rooms at both ends. These long, multi-chambered rooms were considered the residential palaces of the elite (Tozzer 1911: 98-100). Tozzer did acknowledge that great variation existed within these residential structures, such as the number of stories and size.

H. J. Spinden in 1913, also under the auspice of the Peabody Museum, conducted a large survey of the art and architecture of sites throughout the Maya Lowlands and Yucatan. He too agreed with Tozzer's characterization of Maya palaces and their function as residential spaces for Maya priests and nobility. Spinden departed from Tozzer's interpretation by suggesting that palace structures may have served a religious function in conjunction with a domestic one (Spinden 1913: 101). Spinden added additional categories to Tozzer's Tikal palace classification. For example, seclusion and restricted access to a courtyard suggest residential use, while elaborate decoration could indicate a religious and non-residential function (Spinden 1913:101). Gann (1918:53;

1928:175) also supported the residential function for certain architectural forms within site centers as the residences of the upper class. Gann proposed that the presence of burials beneath the floor of vaulted buildings at the site of Uaxactun indicated a residential function (1918:53, 1928:175).

The second phase of academic research began in the 1930s under the auspices of the Carnegie Institute. Smith (1950) used the framework established by others to determine residential function for Group A-V at the site of Uaxactun. Between 1924 and 1945 intensive field research significantly changed how data were synthesized (Traxler 2002). While working at the site of Holmul, Merwin and Vaillant (1932) were among the first to identify architecture systematically based on trait lists—room width compared with wall thickness and room widths to wall and vault height, were the most important attributes used to differentiate between domiciliary and ceremonial structures. Long narrow rooms with thick walls were considered to have functioned as domiciliary/ceremonial, while structures with broad short room with medium walls served as strictly domiciliary in function (Merwin and Valliant 1932: 16). They also noted that rooms with benches were typically wider than rooms lacking benches, making rooms with benches candidates for residential use.

In their seminal work Merwin and Valliant (1932) provided a definition for elongate structures, domiciliary structures, pyramids, burial structures, and temples based on character trait lists. Although their analyses conflated form with function this was the first attempt to identify and define the various architectural forms found in Maya sites. Additionally, they explored the chronological evolution of architecture and ceramics to

establish traditions across time and space. However Harrison (1970) recalls that inconsistency of criteria for establishing structure categories and lack of evidence for implied function severely weakened their analysis.

Nevertheless, it was during this time that L. Satterthwaite, Jr. (1935) followed in the footsteps of Merwin and Vaillant (1932) and began to quantify characteristic "trait lists," e.g., "ground plans" of temple and palace buildings at the site of Piedras Negras. Ground plan was the most important variable used to identify "palace-type" structures. Satterthwaite conducted excavations within the acropolis (Court 1) palace structures at Piedras Negras and provided a more objective view of Maya architecture. He insisted that form alone was insufficient to determine function and was careful not to assign any functional significance based on terminology alone. For example he states, "The term 'palace' as used here has no functional significance whatsoever" (Satterthwaite 1935: 76). Needless to say, Satterthwaite (1937) devised a more systematic approach including evidence for certain types of activities such as eating and sleeping. Accordingly, vaulted structures served as spaces for formal audiences, political receptions, religious ceremonies and storage of precious items, but not as residences.

He argued that evidence of domestic activities, such as sleeping and food preparation, had to be present within a building in order to assign a residential function. The "palace" structures (J-2 and J-6) at Piedras Negras were devoid of built-in features such as benches, altars and other interior features (with the exception of a small L-shaped bench in J-6). Material remains were absent as well (with the exception of four caches). Therefore he concluded that there was not sufficient material evidence to suggest a

domestic use of the acropolis palace structures and proposed that the rooms were designed especially for ceremonial and judicial affairs (Satterthwaite 1935:20). His research was systematic and mostly focused on the chronological development of Piedras Negras based on architectural changes through time, e.g., wall thickness, room width and "vault spans." His work has since come under greater scrutiny; both his interpretations regarding the function of Court 1 and his attempts to establish a chronology for Piedras Negras (see Houston *et al.* 1998).

Much of the research during this time was comparative, with attempts to establish a chronological sequence for Maya sites based on architectonic elements coupled with ceramics. Additionally, there were two major concerns during this period. First, to define, identify and characterize the function of the monumental architecture within Maya cities. This was a bit problematic, since an agreed-upon definition as to what constituted "palace-types structures" in terms of form and function had yet to be established. Secondly, there was great concern with the terminology that was being used and applied, particularly the "palace" concept, which in many cases expressed function. An attempt to mediate the second issue was put forth by Thompson (1939). Thompson suggested that terms such "palace" and "temple" be used to describe forms, and not function. Rupert and Denison (1943) also supported a more objective approach to the study of Maya architecture in the areas of Campeche, Quintana Roo and El Peten by avoiding the use of terms that imply function. They employed more descriptive terms, such as "pyramidal", "long" and "low" (Rupert and Denison 1943). Although during this time Wauchope (1934) explored architecture outside Maya cities, architectural studies

continued to be grounded in site centers and in the religious/residential and palace/temple dichotomies.

Maya "Palace-Type Structures": Second Phase of Academic Developments 1945-1965

Merwin's and Valliant's investigations at Holmul and Satterthwaite's work at Piedras Negras established new foundations for the next period of Maya architectural studies. Satterthwaite's quantification of elemental traits coupled with a rigorous use of material remains and built-in features led to advancements in the evaluation and establishment of building function. However, it was during this phase that one of the most enduring hypotheses concerning Maya society was advanced, when J.E. S. Thompson (1959, 1963) argued that Maya cities were merely empty ceremonial centers devoid of domestic life.

For Thompson (1963) Maya centers did not meet the classification of city, and should be considered "ceremonial centers," rather than cities. Thompson (1963:48) sates, "because it was clear that these places were never urban centers but places to which the people whose homes were scattered over the surrounding country" traveled. In his view centers were only used for pomp, ceremony, and administrative activities. He proposed the idea that only Maya royalty and priests (and a small staff of servants for upkeep) lived within the ceremonial center, and suggested a rough analogy between Maya "ceremonial centers" and old ecclesiastic principalities of Austria (Thompson 1963: 49).

In his work at Mayapán, (D.E. Thompson and J.E.S Thompson 1955) Thompson observed that a noble's residence is less than 100 m from the Temple of Kukulcan. However, Thompson's assessment concerning levels of comfort of Maya palaces was ethnocentric: "…they had no chimneys and no windows, although some rooms had small vents in the walls. Moreover, they were damp and ill lit" (1959: 57-58). Conversely, in 1956 Michael Coe argued for a nonresidential function for the architecture located within site centers. Coe (1956) proposed that royal residential structures were absent in the Maya area and concluded that Maya priest-kings, or whoever ruled the city, lived in lavish but temporary palaces of wood as did the priest-kings of the Khmer civilization (Coe 1956:387).

It is now clear that 20th century attributes of dwellings were not appropriate analogs for exploring ancient Maya dwellings, thus the lack of windows and light are not useful features for determining function. For example at the site of Tayasál Father Avendaño notes the lack of light in the house of Canek, the structure that was described as his residence (Means 1917: 19). Villas observed that houses in Quintana Roo lacked windows, that interiors were very dim and that candles or kerosene lamps were used to illuminate at night (Villa Rojas 1945:52).

The "Vacant Ceremonial Center," a term J. E. S. Thompson (1931; 1963) employed in his later works, unfortunately defined how Maya scholars interpreted the political and social complexity of Maya society for quite some time. Thompson's dichotomous presupposition between priest and peasant and the two-class system of Maya social complexity fueled his view of Maya cities as empty ceremonial centers

(Becker 1971). It was this dichotomy that framed his thesis for the Late Classic collapse resulting from Peasant Revolt against the priest class (Thompson 1966:105-106). Most notable however, is the fact that his hypothesis was only put forward in popular literature. In retrospect, his ideas have come under scrutiny because the data did not match his assumptions about Maya architecture and because many of his concepts regarding Maya architecture, including the "ceremonial center," lacked definitions (Becker 1971; Traxler 2004). Nevertheless, J.E.S. Thompson will always be regarded as one of the most important contributors to Maya archaeology and for his extensive work throughout Yucatan and the Petén.

In the late 40's A. L. Smith conducted extensive excavations and gross trenching at Group A-V in Uaxactun, Guatemala. The trenching afforded Smith an opportunity to document various construction phases at Group A-V. Smith was able to chronicle that evolution and transformation of the group, from a religious center with a small set of temples and shrines that was gradually transformed into a residential palace (Smith 1950: 71). He based this assessment on the shift from single-roomed, temple-like structures to structures with multiple rows of rooms. He also noted the presence of hearths and evidence of burials of men, women and children throughout various rooms as indicators of domestic use in structures with multiple rooms (Smith 1950:28). Smith also discussed the addition of rooms in palace structures and the presence of benches and altars, as characteristics of residential structures (Smith 1950:73). Harrison (1970:213) suggests that although Smith (1950) did not identify criteria to formulate his residential categories, one can deduce that the following criteria were used by Smith: room arrangement,

general structure proportion (long and low), occurrence of interior masonry "benches" and the occasional kitchen midden. Smith therefore concluded that palace structures at Group A-V had functioned as residential and religious spaces. Smith's work continues to be highly respected for his complex interpretations and analysis of Maya architecture (Christie 2003).

Finally, archaeological operations of the Carnegie Institution of Washington began to wane, and most archaeological research was appropriated by universities (Traxler 2004). One of the last explorations of the Carnegie Institution of Washington took place at the site of Mayapan, where Tatiana Proskouriakoff (1962) and A. L. Smith (1962) completed architectural studies that documented the differences between civic, religious and domestic buildings within the site center, for example: Oratories, Group Altars, Group Shrines, Kitchens, and Miscellaneous Structures. These divisions were mostly directed by the open and flexible categories Smith (1962) devised for the Mayapan report "Residential and Associated Structures." Residential function was divided into two additional categories: "Dwellings of the Poor" and Dwellings of the Wealthy." It was not until the Mayapan report that Smith (1962) finally refrained from using the term "Palace" and replaced this overburdened term with "Residential and Associated Structures" (Harrison 1970:212). By the end of this phase Maya scholars were becoming frustrated with this unyielding dichotomy (residential and non-residential) surrounding the function of palace type structures (see Pollock 1965). Nevertheless, this phase ends with the realization that Maya palaces were not strictly used for residential or civic activities, and that an array of activities was carried out within

these built environments.

Maya "Palace-Type Structures": Third Phase of Academic Developments 1970-1994

The beginning of this new phase was in many ways similar to previous studies of Maya architecture, e.g., documentation of architecture across the Maya region, circumscribed interest in form and function, and an interest in identifying the design and construction patterns expressed in Maya architecture (Miller 2008:6). In particular this phase was heavily centered on temporal and spatial, as well as the exploration of urban patterns. Regional and inter-regional variations in location and form of palatial architecture became evident. However, this phase of research was regenerated by a more rigorous framework initiated by Harrison (1970) at the site of Tikal. He continued to explore the relationship between structural form and function for "palace-type structures" and "palace complexes." However, Harrison's work incorporated artifactual and non-artifactual trash deposits, building floor plans and formal architectural features to establish the function of 50+ buildings at Tikal's Central Acropolis. Unfortunately not all associated ceramic material, burials, or artifacts from excavations were used for establishing function. Ethnohistorical data was used at length to buttress some of his interpretations for the function of "palace-type structures" and "palace-type complexes."

Accordingly, buildings with shared architectural attributes (form) would exhibit similar functions. He cautioned that other criteria needed to be explored, e.g., religious symbolism and aesthetic appearance (Harrison 1970:68), and mentions the potential effects on form that these two criteria pose. Although he doubted their influence on

architectural form and function, for example an exterior religious decorative frieze would not alter the floor plan of a residential structure. Thus, he concluded that initial intended use was the most salient influence on structural form. Harrison noted that traditional inferences derived from *in situ* artifacts are not sufficient to determine the function of Maya architecture. A true understanding of function, according to Harrison, can only be accomplished through both formal analysis and the observation of distributional differences in formal attributes and most importantly through analogies (1970:318).

Harrison selected room arrangement as the basis for comparison, an attribute common in all buildings. Based on room arrangement Harrison established four floor plans at Tikal's Central Acropolis. Each distinct floor plan served a specific function that was contingent on primary and secondary construction attributes. The floor plans are as follows: Category 1 (Tandem present/Transverse present); Category 2 (Tandem present /Transverse not present); Category 3 (Tandem not present/Transverse present); Category 4 (Tandem not present/Transverse not present). Harrison (1970) does admonish that these categories are not self-contained and that specific and general function may overlap between the four room arrangements as well as within a single category. For example, "the general function of 'residence' could occur in two categories of room arrangement, while the specific kind of residence is different" (Harrison 1970: 132).

For Harrison, the "flexibility" of architectural form existed throughout the four categories. Even single room structures had multiple functions and hence multiple attributes related to form. Additionally, secondary attributes in terms of change brought up some complex issues regarding the function(s) of a building. For instance he notes the

following case, “the addition of a “bench” in a room where no “bench” had previously existed is a more concrete clue to function in the building than the vague cardinal orientation of that building. We do not know whether this kind of addition reflects a change in the building’s function or is simply a more concrete expression of the original function” (Harrison 1970: 139). Moreover, variability within the same architectural complex merely reflects variation in function (Harrison 1970:199). The four floor plans and differential occurrence of primary and secondary form attributes reflect four different purposes or uses (Harrison 1970:199).

It was also during this phase that Adams (1974) proposed that formal built-in features could establish a residential capacity for palatial architecture. His research at Uaxactun explored Classic Maya palaces and built-in features. The presence of “sleeping benches” was especially important for assigning residential use and in calculating elite population estimates. Adams (1974:286-287) believed that the Bonampak murals demonstrated that benches equated living areas and that benches served as the sleeping surfaces for elite class residents. His argument was supported by Potter’s work at Becan, Campeche (1977) where “palace” rooms that contained sleeping benches also had domestic features, such as built-in fireplaces, drains and niches. Although in the Maya Highlands, hearths are believed to have functioned for both ritual and heating purposes (Wallace 1977). Potter’s work illustrated that rooms with benches often also had niches/storage cupboards, a pattern found also at the site of Uaxactun (Smith 1950). Adams (1974) also noted that group clusters or apartments (2-8 rooms) containing

benches had access to considerable amounts of outdoor paved areas (supplemental living space) on the same level.

Nevertheless, in some locations benches are present in all building forms including temples, colonnaded buildings or long structures and houses, for example, the site of Utatlan (Wallace 1977:21). On the other hand in some regions, for example the Puuc region, "sleeping" benches are rare or present in structures not considered residential. This disparity influenced Andrews (1994) to propose that elites placed sleeping mats on the floor or wooden platforms and that sleeping benches were not a justifiable attribute for exploring function, particularly residential function.

Adams (1981) continued to investigate building complexes in the Petén and Rio Bec regions to identify "palaces," and established a new typology for palace architecture. Uaxactun's group A-V was designated as Type A within his typology. Type A palaces according to Adams (1981) were described as "functionally diverse complexes" while his Type B palaces were thought to have functioned in a strictly residential capacity. Most importantly Adams (1974:287) stated, "that Maya Palace complexes are very individualistic and the amounts of space allotted to residence, administration, storage, court protocol, ritual and other functions are distinct in nearly every case." Ashmore (1981b) notes that conference participants agreed that so-called "ceremonial centers" exhibited residential foci including a variety of political, ritual, commercial and intellectual activities. As such, it seems reasonable that these activities were mapped onto such architectural types.

Andrews (1992) established that Structure IV at Becan served a combination of residential, ceremonial, administrative and storage functions. He considered interior and exterior plans, internal "zoning", differences in room type, size, location and interior details such as benches, wall niches, orientation, private vs. public spaces and architectural sculpture. For example, buildings with single entrances and cordholders offered more privacy and most likely served a residential purpose. Conversely, multi-entrance rooms seemed better suited for more public functions. A similar study was conducted for the three-story Palace at Santa Rosa Xtampak, Chenes (Andrews 1988).

At Copan, Honduras Webster (1989) investigated "elite" residential structures ("palaces"), which according to his analysis differed considerably. For example, at the sites of "Uaxactun, Tikal, Palenque, and Uxmal, such elite palace complexes are closely juxtaposed with major ceremonial groups and are integral parts of the core areas of monumental civic architecture" (Webster 1989). At Copan, "palace-type structures" occurred in the central zones and consisted of "range" structures (lineally arranged rooms on low substructures) outside the Main Group. Copan's Type 3 and Type 4 elite groups consisted of many structures that illustrated lateral expansion and complicated conjoining buildings and courtyards (Webster 1989). Therefore, interpretations' concerning function based on building arrangement does not always work. Key to his research was the diversity of functions present in Group 9N-8, supporting the concept of functional diversity for elite residential complexes.

In the Puuc region, Kowalski (1987) conducted an exhaustive review of the architectural and iconographic elements of the House of the Governor at Uxmal and

concluded that it was probably the residence of the Lord Chac, the last ruler of Uxmal. He also determined that the House of the Governor served as an administrative center and astronomical observatory. This view of Maya "palaces" echoed and conformed to the concept of multi-functionality, including the spaces where the highest-ranking elite members conducted their daily lives. With that being said, scholars continued to debate the continuum of residential vs. non-residential functions.

Data also permitted the regional description of individual structures and complexes to be included in the "palace" category (see Andrews 1994). Finally, it was evident that scholars acknowledged variability in the location and form (configuration and complexity) of "palace-type" architecture. Additionally, scholars acknowledged that there was quite a significant variation from site to site. For example, in the Puuc region Andrews (1994) notes that at Sayil there is evidence of a large residential component, while at Uxmal there appears to be mostly civic architecture. This disparity was attributed to site size where palace complexes functioned as combined residential/civic/administrative structures at smaller sites.

Kurjack (1990) regards Puuc palace architecture as residential and integrative in function, e.g., an entire palace building may have provided housing for large elite kin groups and that *sacbeob* were used connect two palace complexes, perhaps indicating a type of elite kin group affiliation through marriage alliances. McAnany (1990) noted that the lack of *chultunob* in the larger structures at Sayil implies a very limited residential function. In opposition to the mostly residential function of "palace-type structures," Tourtellot (*et al.* 1992) expressed that most of the rooms in elite residences at the site of

Sayil may have functioned for broadly administrative purposes, e.g., antechambers, audience halls, shrines, offices, visitor's quarters, dressing rooms, artisan's workshops and storage rooms. The lack of interior benches and storage niches at Sayil convinced Tourtellot (*et al.* 1992) of a non-residential function.

Establishing function for palace-type structures remained a difficult endeavor. Adams (1975) made this argument several years earlier, especially for Puuc palaces. They are virtually the same size and consistently contain similar attributes making them more "use neutral" (Andrews 1992). The variety of activities in palatial architecture and the difficulty in defining elite residences was also noted by Tourtellot (1993:227) in the following statement, "remarkably difficult to pin down royal households, because so many different activities are jumbled together in typical Maya site-cores." Art historians noted a similar phenomenon from scenes painted on polychrome vessels, where the royal court engaged in diplomatic and ritual activities within the rooms of range structures (Schele and Miller 1986:133-174; Reents-Budet 1994:234-275, 2001).

Although Mayanists believed in the multifunctional nature of large range structures and/or platform complexes, research and interpretations continued to place doubt in the residential function, particularly in the Puuc region. For example, in his conclusions Andrews (1992) suggested that architectural typology alone was not sufficient for establishing function. Additionally, the ceramic data argues against the residential functions for many of the architectural groups. He even goes on to state, "It is even quite possible that the so-called palaces at Sayil were not palaces at all but were mainly devoted to highly specialized functions such as political, administration, ritual

activity and even educational (elite schools)" (Andrews 1992:21). Andrews (1992) encouraged researchers to extract more than architectural typology. According to Andrews (1992), it alone is too ambiguous and independent corroborating evidence is necessary for such studies.

Andrews (1994: 6) later states that the results of numerous large scale excavations and settlement surveys conducted throughout the lowlands "finally laid the "empty ceremonial center" concept to rest and the pendulum has once more swung in the direction of "palaces" as residences for members of the Maya elite class(es)." Consequently, it was at this juncture that the contentious residential vs. non-residential dichotomy was becoming more malleable as scholars began to explore a variety of functions in a more holistic and symmetrical fashion. This shift may have been a consequence of population studies. The elite population within the Maya Lowlands is estimated to represent between two to ten percent of the population, however, when strictly residential function was assigned, elite populations were grossly over represented. Such elite over representation made it reasonable to map a variety of functions onto architecture in Maya epicenters. However, scholars continued to divide site epicenters into residential and civic/ceremonial sectors further indicating that these functions did not coexist within a single structure and/or architectural complex.

Maya "Palace-Type Structures" and Elite Residences: Recent Conceptual Framework 1996-present

As noted by Christie (2003), one can say that this research phase unfolded with scholarly conferences and symposiums between 1996 and 1998 (Harrison 2003). Many

unanswered issues concerned with the form, function, and meaning of palace-type structures were addressed. The first, led by Stephen Houston and Takeshi Inomata in 1996 and subsequently in 1998 directed by Takeshi Inomata and Stephen Houston, led to a double volume publication in 2001. The "Royal Courts of the Ancient Maya" series examined the concept and actors of the royal court and how the social and political lives of the elite and non-elite actors coalesced in palace-type structures (Inomata and Houston 2001). Additionally, Masson (2002) notes an important contribution of these volumes regarding Classic-period governance and ancient Maya site planning. For example, the spatial relationship between administrative buildings and royal households may demonstrate a combined bureaucratic and domestic administration.

Conversely Inomata and Triadan (2003:173) note the dual use of the "the Palace Group" at Aguateca for administrative and ceremonial rather than residential functions. Scholars have come to similar conclusions regarding the non-residential use of many buildings within palace complexes, e.g., Central Acropolis of Tikal (Harrison 1970) and the royal complex of Copan's last ruler, Yax Pasaj (Andrews *et al*. 2003). McAnany (2010:180) suggests that palaces lacking hieroglyphic texts may have served bureaucratic functions, such as the palaces in the Puuc region.

The conference "New World Palaces: Form, Function, and Meaning," Dumbarton Oaks 1998 organized by Susan Toby Evans and Joanne Pillsbury, emphasized the investigation of sub-elite residences and the reconciliation of palace type architecture serving as residences and other functions. In 2004 a book from the conference proceedings was published: "Palaces of the Ancient New World." In the midst of such

conferences, Jessica Christie organized a symposium at the 1998 Society for American Archaeology entitled "Maya Palaces and Elite Residences." The symposium brought together scholars from a variety of sub-disciplines and specialties and ultimately produced an edited volume that provided a holistic approach to the study of palatial architecture, elite residences, and households and a way to architecturally and functionally define the differences between these three architectural forms.

One of the most promising directions in research during this phase was a more holistic approach (Taylor's 1948 Conjunctive Approach), which included epigraphy, art history, anthropology and ethnography in the investigation of palace-type structures and other elite residences. This trend was initially introduced with Julia Hendon's (1987) work at Las Sepulturas, Copan, which included investigation of architectural form, *in situ* artifacts, and sculptural decoration (Hendon 1987). Hendon's investigation of 90 buildings afforded a clear picture of activity areas, from food preparation, and craft production, to ritual activity. Hendon's research also incorporated the social organization of the occupants, particularly social ranking among elites. As noted by Christie (2003) this work became one of the seminal studies that altered and finally replaced the unanimously accepted two tier system of elites and commoners. This allowed for scholars throughout the lowlands to discriminate and explore the asymmetrical lives of elites and social and political organization. However Hendon's work has not escaped criticism (See Plank 2003).

An anthropological archaeology approach has brought to the fore new sets of questions that go beyond form and function of palatial architecture and elite residences.

The inclusion of themes until recently under-appreciated include, but are not limited to, exploring aspects concerning rulers and elites, e.g., their social lives, the acquisition of power and legitimation, the perception and conceptualization of place, sacred architecture, and the roles of gender and identity in the investigations and interpretations of palatial architecture and elite residences. For example, the work of Shannon Plank (2003, 2004) aspires to decipher the emic classification of Classic Maya buildings and their social and cultural roles within Maya society through the assemblage of hieroglyphic, archaeological, architectural and ethnographic data. Such a holistic approach has fostered new conceptual and methodological frontiers particularly because so few artifactual remains are recovered *in situ* in royal and noble architecture.

However Plank's (2003) ideas regarding the strict use of hieroglyphic text are short sighted. For example, she states that: "It is probably not unfair to say that regardless of the meticulousness of excavation, so few contemporary artifactual remains occur with royal and noble architecture that the effort to delineate activities and activity areas for the time period with which archaeologists of Classic structures are usually concerned is often unproductive" and that "the functional approach is not necessarily particularly appropriate for elite architecture in the first place" (2003:90). A similar argument is made by McAnany (2010:162): "Since one of the major signaling devices of a ruler was the commissioning of texts, any architectural complex that is asserted to be a royal court in the absence of hieroglyphic text is suspect, at best." Such presumptive research models are narrow and limiting. For example Zaro and Houk (2012) note the

absence of hieroglyphic texts in the Three Rivers Region. Therefore, there exist a need to rely on other lines of evidence for exploring the use and function of palace architecture.

In my view we need to go beyond the functional aspects of architecture, particularly beyond the residential/ceremonial dichotomy that seems to be our own invention. However before ideological meaning can be determined, function needs to be addressed as best we can. I am fully aware of the architectural overburden and the difficulties associated with monumental architecture in terms of cost and time, but this problem can only be fully addressed and solved through archaeological excavations, perhaps Paleolithic-style micro-level excavations in some cases, in combination with other disciplines.

More recently the enduring "palace-type" terminology has been expanded to include an additional category: "elite residence." Although these categories can and do overlap, they are not synonymous categories (Inomata 2001b). For example, there exists the possibility that palace-type-building were not occupied by elites nor do they always serve a residential purpose (Inomata 2001a: 341). A novel approach explores residential function of the royal court as a household (McAnany and Plank 2001). In their work they tease out the commonalities between a royal court and a household, e.g., architectural form and social roles and ritual practice. Ritual life may have overlapped in the royal court and the household according to McAnany and Plank (2001:90). However, evidence (text, sculptures, and paintings) for rituals involving the transfer of power, such as heir designation and rituals of succession, are absent at the household level (McAnany and Plank 2001). Likewise those rituals in which the ruler laid claim to divinity and rituals

exhibiting deity impersonation undoubtedly did not take place at the household level, although in both locales the ruler and household head, engendered and engaged in rituals that maintained links with ancestors and fertility (McAnany and Plank 2001: 91).

However fine grain discrimination of archaeological data, texts and iconography suggests that such rituals may have been embedded and interwoven with other rituals, particularly mortuary rituals that coincided with the construction and expansion of a structure (McAnany and Plank 2001:91). Although, there may have been independent rituals that involved the transfer of power, for example a mechanism for property to be transferred (Fred Valdez Jr., personal communication October, 2012). Such rituals were undoubtedly smaller in scale, pomp and ceremony. Similarly, Gillespie (2001:98) subscribes to the idea that "aspects of personhood were derived from the organization of the Maya aristocracy into 'houses,' long-lived property owning groups…"

The integration of contemporary Maya ideology regarding their view of the built environment has also widened our understanding of the role architecture in prehistoric Maya society. The most compelling is the ideology of houses as living beings. Ethnographic studies conducted by Vogt (1976:52) describe the Tzotzil-speaking Maya of the municipality of Zinacantan, Chiapas. Zinacantecos feed a new house a combination of chicken broth and cane liquor during an ensouling of the house ceremony as part of the dedication ritual. The Zinacantecos refer to the roof of the house as the hair and the door as the mouth—a form of anthropomorphism. Gillespie also (2001:93) discusses how structures in ancient Maya society were given names.

This thread of parallelism between ancient and contemporary views and the understanding of houses and/or architecture as living objects allows for further analysis and interpretations about the role of the built environment in ancient Maya lives. Although, as is always pointed out to me by my committee chair Dr. Fred Valdez Jr., the colonial overburden has heavily influenced and affected Maya society and we are yet to fully understand the complexity of the colonial experience on contemporary Maya society and how much continuity really exists between the two societies. Nevertheless, ethnohistoric and ethnographic data remain a valuable component in and of themselves, and are often used to shore up and validate what we are saying about the ancient Maya.

Summary

This chapter outlined some of the basic frameworks and fundamental studies of that have influenced how today's scholars investigate monumental architecture, particularly buildings classified as "palace-type structures." The first westerners, John Lloyd Stephens and Frederick Catherwood, were the first to document and disseminate the grandeur of Maya civilization, and in essence advanced dilettante and scholarly interests in Maya society. Although, the interpretations made by early explorers may have been simplistic and rudimentary, they set the foundations for the study of Maya architecture. However, the functional categorization and European analogies used for describing and making interpretations about the function of monumental architecture created a divisive backdrop.

Early on, Mayanist were interested in defining the architectural components and the organization of large Maya centers. This established a set of building form categories, e.g., "palace" and "temple" based on systematized trait lists. These categories allowed for site centers to be segregated into discrete activity areas, such as residential and ceremonial. These activity areas contributed to models of ancient city planning. Subsequently, researchers diligently amassed data sets for determining building function and a shift from exclusively building form to activities based on artifactual data coupled with built in features (benches or presence of burials) emerged. Underlying research endeavors constituted a comparative chronology of sites across the landscape based on monumental architecture and ceramic data.

Although building categories from the early period continued to be used, scholars wanted to distance themselves from categories that implied function and establish an agreed upon function and form for "palace-type structures." Problems associated with categories that prescribed function were remedied by providing more neutral terms, such as "range structure." Therefore, resolving the discord in terminology was a major component and always in the foreground, and continues to be addressed in today's dialogue of monumental architecture. By the second phase trait lists and artifact classes became more refined and paired with building form. Such methods became entrenched in the investigation of Maya monumental architecture and continue to be instrumental to the investigation of Maya architecture.

During the early academic phase (1910-1945) the creation of the residential/religious function dichotomy came to the fore. By the second research phase

Thompson (1931; 1963) further advanced this dichotomy with his notion of "empty ceremonial center." While his idea was only published in popular literature, such a claim became an important mainstay that divided Maya society into a two-class social system and it was not until the third phase that misconceptions regarding the social organization of Maya society were eventually dispelled through the work conducted at the site of Tikal by Harrison (1970).

One of the most important and critical works occurred early in the second phase, when A. L. Smith was able to investigate the changing configuration of Group A-V and the transformation from religious complex to residential palace at the site of Uaxactun. Excavations allowed for a clear comparison between domicile and ritual activities and a way to differentiate between the two in one locale diachronically.

By the third phase of academic research Harrison (1970) applied one of the most extensive and rigorous methods for exploring the function of palace-type architecture. He coalesced the methods used by previous scholars (material remains and built in features) with an establish set of building floor plans and formal architectural features. Most notable for Harrison was structural form; it was only through structural form that one could understand how a building functioned. Mayanist came to terms with the fact that "palace-type structures" were multifunctional during this phase. They agreed that domiciliary, civic, and ritual activities often coexisted within palace buildings and/or complexes. Additionally by the end of the third phase variability across space (Puuc vs. Petén), in form and built in features became evident as Mayanist grappled with this acknowledgement as well. Nevertheless, major projects at Tikal and Copan afforded a

more comprehensive analysis, which presented a clearer view of activities taking place within site centers.

During the late 1990s a number of symposiums reignited the concern with the function of monumental architecture. The work presented by Inomata and Houston (2001) departed from the traditional dialogue and incorporated the actors that occupied these spaces, both elite and non-elite. The incorporation of sub-elite residences outside site centers was also added as an analytical unit. This provided a more holistic approach that incorporated palatial architecture, elite residences, and households, to study of Maya architecture (Evans and Pillsbury 2004). Advancing beyond form and function provided a new platform for formulating new research questions that incorporated the occupants of these built environments. New questions required more data sets from various disciplines and sub-disciplines, such as epigraphy, art history, anthropology, and ethnography, in the investigation of palatial-type architecture—Taylor's (1948) Conjunctive Approach.

The flexibility in function is of great importance to the research at hand, especially when exploring building complexes where a variety of activities are taking place simultaneously. The single function approach was too deterministic and in the end created isolated functional categories that may not have existed within Maya society. Although some architecture in Maya centers is very specialized, space and the built environment are yielding and function can even be transient in some cases. Maya society has been described as a complex lattice that is interwoven with the social, religious, political, and economic lives of people, making it nearly impossible to separate these into a single spatial milieu.

While questions and interpretations that expand beyond form and function have definitely enriched our conceptions of Maya society, the methods established over the last century remain key and necessary within this field of Maya archaeology. The investigation of building plans, location on the landscape, and associated artifact classes not only provide the corpus from which other questions can be investigated and addressed, but are also fundamental for the practice of archaeology.

As Plank (2003) has firmly stated the functional approach may not work well when looking at elite architecture for a number of reasons, but mostly because of the lack of *in situ* artifacts that can be used to determine activities within a spatial milieu. She is correct in making such an assessment, oftentimes, material remains are lacking or they consist of "problematical deposits" (see Clayton et al. 2005; Houk 2000). Nevertheless, her proposal to use hieroglyphic data for exploring the function and use of elite architecture could only work for a handful of cases and such an approach would be more restrictive and narrow than the current functional approach. Her research has definitely put a new perspective on the emic view and use of elite architecture that can be merged with current approaches, but it cannot replace the functional approach to monumental architecture. Therefore, some of the oldest approaches for exploring function continue to set the standards. After all it is archaeology that we are engaged in and this is how archaeology is done.

Chapter 2: Structuration Theory and Ritual Settings

> The world is shaped by applying rules which lead to systematic and consistent choices, whether in creating a life-style (i.e. the specific way of allocating temporal, material, and symbolic resources), a building style, or a landscape of a settlement. In all these cases, choices are made from among the possible alternatives. It is of particular interest to consider landscapes and settlements. These are the result of the individual decisions and acts of very many individuals and groups, which yet add up to a recognizable whole. (Rapoport 1984:51)

Introduction

Understanding the long scale processes (*longue durée)* that embody the built environment (altered landscape and architecture) of the Los Pisos Courtyard from the Late Preclassic to Classic period times (400 B.C. to A.D. 850) is an especially complex undertaking. The role that the built environment and ritual played in structuring sociopolitical relations is particularly difficult to access. Yant (2011) notes the difficulty of such undertakings where the archaeological context yields only limited information, in particular the lack of artifact preservation, "problematical deposits," and the absence of hieroglyphic texts. For example, monuments bearing texts at La Milpa at the height of its existence are highly eroded limiting the information that is typically gathered, e.g., the ritual and political actions of the elite (see Schele and Freidel 1990). Additionally, material correlates of ritual, (e.g., musical instruments, costumes), is rarely recovered and often times recovered from secondary deposits and not in their original-use context.

Many scholars conducting research within cities and urban centers have noted that the limitations of excavating monumental architecture due to time and money results in

theories more robust than data sets. These scholars also acknowledged that we are evaluating a highly complex human phenomenon with less-than-comprehensive data sets and that reconciliation can be attained by framing our questions in terms of the social interactions that produce the material patterns, including the built environment (Smith 2003:24-25).

The present research examines how transformations in the built environment (altered landscapes and/or architecture) created expansions and/transformations in ritual practice and how such transformations were strategies that the elites used to engender and legitimize their position in society. More specifically, this research explores how agents of high status and/or elite created, transformed, and manipulated the built environment, particularly non-domestic architecture, to shape social interactions and influence social production and reproduction. The role of agents in the construction and transformation of the built environment can be approached through the theory of structuration developed by Giddens (1979; 1984; 1985) and Bourdieu (1977, 1990). I believe that this approach is the most useful for furthering our understanding of the built environment and its role in Maya society. Moreover, this method allows one to recognize and understand the reproduction and transformation of structure through very specific sets of material remains (altered landscapes, architecture, and material culture) that are visible in the archaeological record.

Structuration theory proposes that rules that structure society are produced, reproduced, and transformed through the social interaction of individuals; this includes all social interaction associated with daily practices as well as formalized events such as

ritual (Giddens 1979, 1984, 1989). Social interaction typically takes place within a built environment (altered landscape and/or architecture) which can influence how agents engage with one another. Hence, the constitution and or alteration of such built environments can dramatically change how agents reproduce, negotiate, and transform structure during social interaction.

The built environment (altered landscape and/or architecture) provides settings for distinct activities, in this case a sacred setting for ritual activity and performance. As such, ceremonial built environments create a setting for integrative ritual performance, where the negotiation of status can take place, i.e., "formalization" and "spatial differentiation" (Lesure 1999:394). For example Bell states the following:

> Formality is one the most frequently cited characteristics of ritual…formal activities set up an explicit contrast with informal or casual ones; and activities can be formalized to different extents. In general, the more formal a series of movements and activities, the more ritual-like they are apt to seem to us (1997:139).

While individual and daily practice is in some ways fleeting, formalized ritual performance and settings create "a sort of permanence by calling forth memories of a series of repeated actions" (Lesure 1999:394). We can no longer view these sets of formalized activity that may have appeared as speech, gestures, movements, and sequences of actions, however, an archaeological approach can explore how such spatial settings with visible remains of formalized activities are created, altered, and transformed (Lesure 1999). For example the built environment can be transformed, either through differential use and/or physical modification.

Excavations in the Los Pisos Courtyard revealed transformations in the built environment that expanded/or altered ritual practice and hence social interaction within the La Milpa community. This research explores the ways in which the dynamic lattice between architecture and ritual in two distinct built environments, public and private, at the Los Pisos Courtyard produced opposing contextual frameworks that influenced sociopolitical relations at La Milpa. As such, this research explores the ways in which public and private ritual arenas were effective vehicles for social cohesion and a way for agents (both elite and non-elite) to reproduce, negotiate and transform constraining and enabling parameters of Maya society.

Exploring the long processes that took place at the Los Pisos Courtyard allows structuration to become visible and attainable as multiple generations were producing, reproducing and transforming society in two distinct built environments from the Late Preclassic through the Late/Terminal Classic periods. Joyce and Lopiparo (2005: 371) argue that repetitive practices, which create built forms, that are new, reconstructed and/or transformed architectural projects, were ways for agents to intentionally create social differences by stratifying space and creating differential experiences and knowledge.

The creation and or transformation of built space represent traditional orthodoxy and/or innovative heterodoxy (Joyce and Lopiparo 2005). Such construction efforts would have involved the whole community from the people commissioning such projects, "but also those whose labor is directly represented by these works, as well as those who lived through the changes in spatial layout that were outcomes of these

projects…" (Joyce and Lopiparo 2005: 372). In Maya society, the elite or individuals of higher status were responsible for public built environments, therefore elites expanded and legitimatized their position in society through the capacity to shape social interactions, and influence social production and reproduction.

The subsequent section presents the framework of Structuration theory to clarify how the ideas presented above can be linked with the built environment of the Los Pisos Courtyard, and the material culture generated through excavations. Because social interaction occurs in time and space, a discussion defining "place," and how the built environment influences social interaction will be addressed. Although numerous forms of social interactions and daily practices were taking place at the Los Pisos Courtyard, this research is mostly concerned with the social interactions that took place during ritual performance. Therefore, how ritual is defined within the parameters of this research and its place within structure are presented in the last section of this chapter.

Structuration: The Duality of Structure

Structuration is the exercise of agency within the structure of any social system, whereby the two, agency and structure, work simultaneously to dialectically reproduce and transform that system; they are inseparable parts of a single process within a specific temporal and spatial location of interaction (Giddens 1979, 1984; Joyce 2004; Joyce and Lopiparo 2005; Pred 1985). Structure and agency work within the dimensions of structuration and are not opposed to one another (Giddens 1984; Sewell 1992) but conceive each other, not as "alternative, but rather inseparable parts of a single process"

in temporal and spatial spheres of interaction (Giddens 1979, 1984; Joyce 2004; Joyce and Lopiparo 2005:565; Pred 1985).

Structuration theory argues that the rules and resources that structure society are reproduced and transformed through the social interactions of individuals in time and space (Giddens 1979; 1984; Hegmon 2008; Joyce and Lopiparo 2005). The use of structuration theory has become a valuable platform for the study of the built environment because it is a durable representation of human agents with practical consciousness working within structures, which subsequently influence social relations and the production, reproduction and transformation of social systems (Bourdieu 1977; Giddens 1984, 1989; Joyce 2004; Inomata 2001a, 2006a, 2006b; Joyce and Hendon 2000; Love 1999; Pred 1985).

Giddens (1984: 377) notes that structure is virtual and exists only as "memory traces, the organic basis of knowledgeability, and as instantiated in action." These ideas or rules are embedded within the mind of the agent and exist or are visible when they are "put into practice in the production and reproduction of social life" (Sewell 1990:6). It is through daily social interactions of agents that social structure is reproduced and transformed. As such, it constrains but also enables social actors depending on differential knowledge that allows agents to strategically use the available resources and rules, i.e., "structures must not be conceptualized as simply placing constraints on human agency, but as enabling" (Giddens 1976: 161).

Agency

A general view of agency is the "choices made by people as they take action, often as they attempt to realize specific goals" (Varien and Potter 2008: 7). However, Joyce (2004) notes that knowledge is not always (or ever) perfect and agents may not have a complete understanding of their structure, sometimes resulting in actions that have unintended consequences. For example Giddens states (1984:9), "[a]gency refers not to the intensions people have in doing things but to their capability of doing those things in the first place…Agency concerns events of which an individual could, at any phase in a given sequence of conduct, have acted differently." Giddens (1984: xxiii and passim; 1979) introduces the concept of "practical consciousness" which asserts that agents have knowledge of the structure in which they carry out their action, even if they do not intend all of the consequences of their actions (Hegmon 2008: 218; see Joyce 2004).

Agency can work at the individual level (see Hodder 2000), as well as at the collective level of taxonomic groups within society, such as class, faction, age group or institutions (Dornan 2002; Gillespie 2001; Paunkett 2001;Varien and Potter 2008: 8). Agency at the collective level is interpreted as being relational where individuals form groups based on class within a social field and work in concert with others to constitute a certain action that works either in concert with or opposed to groups of differential social fields. Thus it is within this collective form of agency that social relations and negotiations take place.

According to Bourdieu (1990: 66-68), it is membership within certain social fields that creates a collective expression of agency. Each group is situated within a structure

whereby varying degrees of access to resources exist. Cowgill (2000:53) views difference in access to resources, power, prestige and authority as "social leverage," and therefore each group or individual agent has diverse interests and goals. Collective agency allows for face-to-face *de facto* interaction among all individuals regardless of their social leverage. Giddens (1984: 64-72) addresses this as "interaction with others who are physically co-present." While the context of co-presence is important for social interaction, there are multiple contexts of interaction that can affect the process of social negotiation.

All individuals within a society possess agency in relation to the social fields in which one is enmeshed. In effect all segments of a society have the ability to transform social relations through what Sewell (1992:20) denotes as "complex series of repertoires of interaction skills" that are historically and culturally determined. This capacity is guided by one's ability to strategically use rules and resources within this structure. Agents (individual or collective) can appropriate rules and resources and enact them in time and space often to achieve specific goals (Giddens 1984:377). In this light this research sees all sectors of Maya society as having agency—both elites and non-elites were appropriators of the reproduction and transformation of structure.

For example, agents can and do call upon the past (social memory), as a symbol of continuity in the present as a means to uphold the framework of cosmic order (Alcock 2000, 2002; Gillespie 2001: 93; Van Dyke and Alcock 2003). Memory is socially constructed and acquired in a variety of social contexts by members of a social group, and localized and recalled through direct or indirect relations with other people

(Connerton 1989:36; Mills and Walker 2008). In some instances, memories are conveyed, sustained and controlled through ritual performances in commemorative ceremonies as a dimension of political power (Connerton 1989: 3-4). However, the performers have to be persuasive by means of habituated performances using a bodily social memory (Connerton 1989: 71). According to Hegmon (2008:228), this is intentional agency used to deliberately reinvent or perpetuate past tradition and history. She argues that the knowledge and use of this past structure (rules) becomes a resource (memory) in the present, providing the actors with cultural claim to legitimacy and wealth (see Baines and Yoffee 2000).

Rules and Resources

In Structuration theory rules and resources are considered an intertwined dimension of structure; rules-resources constitute structures when they mutually sustain each other over time and generate social practices and social systems (Sewell 1992:13). Rules can be seen as general procedures and conventions that guide agents. Moreover, rules are seen as constituting meaning while simultaneously sanctioning modes of conduct (Giddens 1984:18). They are not visible as concrete manifestations but have a "virtual" existence (Giddens 1984: 17; Sewell 1990:6). While there exists two forms of rules, formulated and social, it is the social rules that are of interest here because they are generalizable and can extend over a range of contexts and time (Giddens 1984:21; Sewell 1992). The rules of social life can range from society's fundamental tools of thought to various conventions, scenarios, principles of action, and habits of speech (Sewell 1992:7-

8). Awareness (practical consciousness) of social rules allows agents to enact/reproduce and transform society (Giddens 1984:17-25, 1989:255-256). Resources are linked to rules that inform their use (Varien and Potter 2008). Therefore, resources are harnessed as forms of power into settings of social interaction by knowledgeable and historically contingent agents (Giddens 1984: 256-262; Varien and Potter 2008).

Giddens (1979:100) distinguishes between authoritative resources, which are capabilities that generate command over people, and allocative resources, which are capabilities that generate command over objects, e.g., human domination over nature and physical artifacts (Giddens 1984: 377; Varien and Potter 2008:9). Authoritative resources are described as the ability to harness the activities of other individuals and result in the domination of some actors over others (Giddens 1984:377). Although both resources are unevenly distributed throughout a society everyone has the potential to access both human and nonhuman resources and this is why all humans should be conceived of as agents who are empowered by their access to these rules (schema)-resource sets (Sewell 1992:10).

Yant (2011:41) notes that we do not have access to social rules; however, we can examine allocative resources (the archaeological record) because they incorporate and actualize rules and make inferences about the social forces that produced them. Therefore the nonhuman resources or the material traces and residues are of great interest to archaeologists because they outline the rules of social relations and social reproduction. "Both human and nonhuman resources are activated though the schemas (rules) that inform their use; it is these schemas that determine their value and social

power" (Sewell 1992: 10-12). Resources become the media animated and shaped by structures through the strategic ability of agents to transpose and extend rules into new situations and across domains (Sewell 1991:11).

Time-Space Regionalization

The time-space dimension of rules, resources and agency creates a social geography that is particularly pertinent to archaeological investigations. According to Giddens, (1979; 54, 1984: 132) the context for social life and social institutions in all societies occurs in time and space and is the key field in which agency operates. For example, "…an understanding of institutional forms can only be achieved in so far as it is shown how, as regularized social practices, institutions are constituted and reconstituted in the tie between the *durée* of the passing moment, and the *longue durée* of deeply sedimented time-space relations" (Giddens 1979:110). Keeping in mind that time and the social organization of space are conceived based on culture and historicity, each society creates settings for interaction within distinct time parameters (Ashmore 2002). Time-Geography is central to structuration theory because of its concern with "infrastructural constraints that shape the routines of day-to-day life, and shares with structuration theory an emphasis upon the significance of the practical character of daily activities, in circumstances where individuals are co-present with one another, for the constitution of social conduct" (Giddens 1985: 269).

Giddens' (1984:375-376) spatial concept of "locales" as the places where face-to-face social action or co-presence occurs recognizes that daily action includes space and

that it is these daily actions, which constitute space. Such locales are found on the landscape in their physical properties as built environments in combination with human artifacts thus the quality of fixity inherent in locales becomes important for the constitution of disciplinary power (Giddens 1984:118). The ability to transform the unestablished into habitual is based in part on permanence. The built environment renders this idea of fixity into a context in which social interaction occurs (Love 1999). The fixity rendered in monumental architecture is characteristic of the ultimate inalienable and unmovable possessions, "…those precious items that materialize the identity, the cosmological authentication and the power of a family line or community" (McAnany 2010: 143, 148). Stone monuments and the fixity they represent can be considered akin to Ricoeur's (1985:106) "monumental time" and it within this time-space continuum that authority figures were engendered (McAnany 2010:180).

Giddens (1984:122-124) argues that the regionalization of locales encloses zones of time and space that permit and sustain distinctive clusters of social interactions. Giddens (1984) describes generalized types of social action and interaction that become separated in space and time. Conversely, Love (1999) provides historical settings in which the regionalization of locales into zones of specific social interaction enabled the categorization of locales and practices, creating oppositions such as core/periphery, town/country, sacred/profane, elite/commoner and frontstage/backstage (Love 1993: 134-135). Love (1993:147) argues that when these distinctions and practices become routinized, dominance is reproduced because the "creation of these types of spaces had the net effect of constructing nonegalitarian forms of social interaction."

Co-presence (collective interaction or relational agency) only occurs during certain times and within certain spaces. However through "time-space distanciation" (Giddens 1984:377) action is transformed into supra-individual time scales and it is within this type of social action that social institutions develop (Varien and Potter 2008: 13). Structural properties, i.e., institutionalized features of a society stretching across time and space, are where innovation can take hold. For example, institutionalized features of social systems such as kinship and/or tradition can be extended across time and space. Conversely, as a society grows and expands and people become distant in time-space, co-presence is not easily secured and sustained. Therefore, authoritative resources, "people's capabilities of controlling the humanly created world of society itself", become essential for integration and the achievement of "time-space distanciation" (Giddens and Cassell 1993:21).

Summary

As a way to summarize the theory of structuration and all its components, a brief discussion concerning the Los Pisos Courtyard as a regionalized locale for the reproduction and transformation of institutionalized features of Maya society is necessary. Social rules and resources (both allocative and authoritative) concerning social interaction during ritual practice were in place during the late Middle Preclassic period (e.g., Hendon 1999; Joyce 1999; Marcus 1993; Moholy-Nagy with Coe 2008). For example, a form of hierarchization, the expansion of domestic ritual into the public

arena, certain forms of ritual paraphernalia and public architecture are present in the Maya region and throughout Mesoamerica.

I propose that the central precinct of La Milpa may have been created and established as a locale for public ritual practice during the Late Preclassic. Such forms of social interaction created social cohesion and community identity, which simultaneously supported the constitution of asymmetrical relations. Ritual practice is interpreted as "a set of activities that construct particular types of meanings and values in specific ways" and can be seen as "…a vehicle for the construction of relationships of authority and submission" (Bell 2009:82). In Maya society public rituals and performance were an important part of sociopolitical development (Freidel and Schele 1988a; Coben and Inomata 2006; Inomata 2001a, 2006a, 2006b; Lucero 2006). Emerging rulers used them to integrate large numbers of people, and insert and advance their own political agendas within known and existing social norms.

It is clear that rules can create a constraining but malleable process that produces and reproduces structure. Structure is therefore composed simultaneously and recursively of schemas and resources. Just as resources are activated through social rules, the use of resources justifies these rules. Schemas are validated and perpetuated by the use and accumulation of resources that their enactment engenders. The social rules and resources were accepted and negotiated by all working within the structure at La Milpa during rituals framed in time-space distanciation that were grounded in tradition and/or kinship.

The leaders of La Milpa were knowledgeable agents acting within the known cultural constructs of Maya society and during the Late Preclassic period these agents were reproducing and re-enacting domestic rituals in a public medium at the Los Pisos Courtyard. This created a social system with more drastic asymmetrical power relations between those performing and those participating. Such performative rituals simultaneously formed cohesive relations that inspired a community identity. It was within these ritual precincts that social interaction engendered social cohesion and moral integration, where people from different social and political groups embodied a local and community identity while simultaneously creating and maintaining asymmetrical power relations (Coben and Inomata 2006:12). For example, Lucero (2006:523) proposes that ritual replication of domestic dedication, termination, and ancestor veneration rites, instituted a form of political integration used by emerging leaders to control resources and people.

By Classic times, agents transformed the built environment (locales) and the disposition of social relations (ritual practice) taking place within these locales. The built environment became internally regionalized or partitioned; in essence, social practices become regionalized because the regions within them constitute the contexts of social interaction (Giddens 1984:118). Love (1999:134) views this as shaping social interaction between members of different groups. Such spatial segregation serves to reproduce social inequality, dominance and linked ideological principles by controlling co-presence and interaction and, more specifically, by zoning locales and the social practices that occur in them (Love 1999: 134). The Los Pisos Courtyard, which once integrated and

created community identity, becomes a place that is separated by physical markers. Social interactions within the courtyard only occur between the elite members of La Milpa. Rituals and memories then become symbolic capital that is translated into political power (Bourdieu 1990:69).

The Innovation of "Place"

How Maya elites established and used the built environment, particularly public ritual arenas and "palace-type" complexes, to create, legitimize and sustain their power and authority is the focus of this research. The theoretical underpinning of the current research includes a variety of functionalist perspective in the study of architecture that range from room arrangement, associated features and artifacts, performance space, iconography, and symbolism (e.g., Harrison 1970; Hendon 1991; Kowalski and Dunning 1999; Miller 1988; Satterthwaite 1937; Schele and Freidel 1990). However, it departs from this perspective by exploring the constitution and transformation of "place" and its influence on social relations. Many forms of social interaction, particularly ritual events, occur within a built environment that has been transformed from space to "place." In Maya society, a certain segment of the population, the elite, commissioned and controlled the construction and transformations of public built environments. Such a perspective illuminates the dynamic relationship between agency and the built environment and the ways in which "place" influences social relations and social production (Yant 2011).

Structuration theory affords the analysis of concerning the relationship between power and space (place) and the social actions of individuals that create a recursive

relationship between social production and built forms (Lawrence and Low 1990: 455, 482). The reproduction of order (social, political, economic) ensures the continued existence of a social formation and/or transformation (Lawrence and Low 1990). For example, as agents create places through their thoughts, actions, experiences and ascriptions of meaning they become integrated human beings within society and its structural components and in turn are reproducing and/or transforming this structure (Pred 1985: 338).

"Place" is a human product, "it always involves an appropriation of transformation of space and nature that is inseparable from the reproduction and transformation of society in time and space" (Pred 1985:337). This position holds that "place" is not a passive, but a dynamic innovation that is flexible and adaptive and therefore holds an important role in social production. Place is configured in time and history through the uninterrupted flux of agency and experience (Giddens 1984; Pred 1985). The innovation and maintenance of place is seen as "a historically contingent process that emphasizes institutional and individual practices as well as the structural features with which those practices are interwoven in usually unacknowledged ways" (Pred 1985:338). Place therefore represents the "spatial matrix of experience, memory, and meaning" innovated and sustained through social interaction (Ashmore 2004:94).

Bowser (2004) expresses the difficulty in defining the meaning of place because it can vary from individual to individual based on one's memories, experiences, social knowledge and today's politicized arena of practice theory. Recently, archaeologists have mitigated the difficulties in identifying the "ways in which people impart meaning

to their cultural and physical surroundings at multiple scales" through the archaeology of landscape (Bowser 2004: 1; see Carroll et al. 2004; Bowser and Patton 2004; Stewart et al. 2004; Whitridge 2004). These works have shifted an emphasis from defining the meaning of place to examining how different people engage with a variety of meaning in constituted settings of social interaction. These works draw from a multitude of theoretical approaches including the anthropology of landscape, cross-cultural proxemics, phenomenological experience, contemporary social theory, cultural geography, oral history and architecture (Bowser 2004).

In Mesoamerica such an emphasis is tied to the "dramaturgical" approach in which built environment function as a stage for the "drama" of social production (see Coben and Inomata 2006; Houston 2006; Inomata 2001a, 2006a, 2006b; Triadan 2006; Yant 2011). An accompanying concept of "ritualization," as proposed by Bell, (1992) conceives the creation of the sacrosanct built environment through action and interaction (in this case the ceremonial precincts, i.e., plazas, platforms and temples) as the primary stages for public displays. Interlocutors, participants, and spectators are within a location/ritual field that is structured by the material world (i.e., clothing, architecture, portable artifacts and the transformed appearance of the 'natural world') and which could be used to guide the actions and movements that signify cultural differences and as mnemonic devices that direct and structure discourse (Barrett 1991:3).

The material objects that frame ritual discourse are imbued with meanings that may be created, re-called or re-invented in the context of co-presence communication (Barrett 1991). Those who entered plazas, according to Inomata (2001a: 345), "could re-

experience theatrical display in the space where the acts had taken place." However drawbacks exist in the pomp and spectacle of Classic Maya rulers since they were subject to the constant scrutiny and approval of their council, nobles, and the community (Inomata 2001a). A good performance could yield power and, by the same token, a poor performance could weaken the divine power of a ruler (McAnany 2001:143). Therefore, the built environment framed the interactions and social relations among those who occupied that space. Inomata (2001a), after Higuchi (1983), Hillier and Hanson (1984), Hartung (1980) and Kowalski (1987), notes that access, capacity and visual and acoustic effects are also necessary elements for exploring patterns of interactions in the built environment and stresses the importance of examining the built environment through the perspective and experience of its users and viewers (Moore 1996; Tilley 1994).

It is through the act of ritual performance within a certain location that collective memory produces the meaning of place. For example, Turner (1967) uses such an approach to explore how the built environment is given meaning through ritual action. Yant (2011:27) observes the various components of place that are accessible and can be more easily explored through the archaeological record, i.e., the static physical setting (both the natural and the built), the activities that occur within a given place and the meanings associated with a particular place.

Ritual

Ritual has played a significant role in creating, defining and transforming structures of power and enabling societal transformations (Comaroff 1985: 194-199;

Demarest and Conrad 1992; Dietler 2001:70; Durkheim 1965). Anthropological literature has construed ritual as a coercive force for elite legitimation and propaganda (Ringle 1999:185). Coe (1981:170) states the following: "I believe that religious considerations have been important factors in the rise of complex societies and in the formation and perpetuation of elites." Recently, archaeologists have explored ritual as a commodity in Maya society. For example, McAnany (2010:159 argues "Ritual economy – the materialization of values and beliefs through the acquisition and consumption of objects that facilitate symbolic communication – is central to the study of social difference and political authority." However, this is considered an inalienable economic or symbolic capital, e.g., ritual performance is that which embodies "the special status and position of those who possess it" (McAnany 2010:160).

Conversely, Inomata (2001a) after Macaloon (1984: 21-22) notes that state-sponsored spectacles created dominant ideologies which stimulated the unity of heterogeneous groups and which served to anchor the society's deepest values and traditions not only to the masses, but to the elite community as well. For example it has been suggested that "…religious rationales for inequalities of wealth and status are usually embedded in a larger vision of social cohesion" and that legitimation was accomplished through the use of an earlier system of beliefs which was later appropriated and modified for political ends (Ringle 1999:186). On the other hand, McAnany (2010:196) acknowledges Dirks' (1991:219-220) view that ritual is situated within the political field of hegemony and struggle and that ritual practice serves as a vehicle for the construction of power but also as an arena for authority and counterclaims.

While it is nearly impossible to generate an all-inclusive definition and characterization of ritual, general approaches used to define ritual are quite distinct from one another and scholars have concentrated their efforts more on what ritual does rather than on what ritual is (Bell 1992, 2009; Rappaport 1999; Triadan 2006; Yant 2011). At the other end of the spectrum Butler (1990, 1993) and Derrida (1988) propose that all human action and interaction require a performance that is repetitive in nature and thus can be considered ritual including the most mundane informal daily activities. Although ritual is part of all daily activities in the routines of traditional monastic life, I do not believe this to be the case for Maya society (see Bell 2009:151). In Maya society many of the activities people conducted may have been ritualized to various degrees (Bell 2009: 91). In a traditional sense ritual can be defined and perceived as "repertoires codified by tradition, often preserved in textual sources, and presided over by trained experts" and " a way of acting that is designed and orchestrated to distinguish and privilege what is being done in comparison to other, usually more quotidian, activities" (Bell 1992: 74, 2009: 91).

For this research the ritual action under consideration is separate from daily practices and is framed within a temporal and spatial setting that includes a number of categories of ritual, however commemoration and political rituals are of significant importance (Barrett 1991; Bell 1992, 2009). Additionally, the material and spatial context in which such performances take place are explored (see Inomata 2006a, 2006b; Inomata and Coben 2006). A complimentary conception of the communal nature of ritual is expressed by Inomata and Coben (2006:16) as "a gathering centered around

theatrical performance of a certain scale in clear spatial and temporal frames, in which participants witness and sense the presence of others and share a certain experience." The performative dimensions of ritual are considered deliberate, self-conscious and saturated with highly symbolic actions that continually reproduce and reshape social and cultural environments (Bell 2009:76,160). An appealing element of the performance model is the reflexive nature of the participants as interpreters and communicators of the value-laden symbols (Bell 2009:74).

Consequently ritual becomes a form of discourse characterized as 'textual' and different from every day talk - a form of performative language that is encoded through prescribed singing, speech, movements, postures and gestures in a compositional whole (Barrett 1991; Connerton 1989:58; Leach 1966). All these parts of liturgy are patterned in a predictable and repetitive way making ritual language restricted and invariant (Connerton 1989:5, 67-70). It is through the repetitive practices that a ritual performer becomes a disciplined body and the communication value of the ritual is retained (Connerton 1989; Leach 1966). Conversely, the interpreter of ritual sequences must have detailed knowledge of the cultural matrix, which provides the context of the rite (Barrett 1991; Leach 1966). This form of shared common knowledge and co-presence between the listener and performer are necessary for the correct message to be transmitted (Leach 1966). It is through performative liturgy that the community is constituted and during which this constitution is recalled (Connerton 1989:59). These visual and audible performances or major social formations established what Turner (1979: 470) called

public liminality as a way to create moral unity and *communitas* among participants through public reflexivity and equality.

The social function of ritual, i.e., "what ritual accomplishes as a social phenomenon", has been addressed in a variety of ways and is quite dichotomous (Bell 1997:23). While ritual is generally believed to evoke and establish asymmetrical social and political relationships of authority and submission (Bell 1992; Kertzer 1988) it is also viewed as a force that constitutes the assemblage of social groups to form a community's identity (Durkheim 1965; Inomata 2006b; Inomata and Coben 2006). With that being said, the inclusive nature of ritual situates people in stratified social fields based on knowledge, which creates "relationships of authority and submission" (Bell 2009:82; DeMarrais *et al.* 1996; Giddens 1984; Inomata and Coben 2006; Triadan 2006:160-161 Yant 2011:50). These two phenomena, integration and power, are the two important polarities of performative rituals.

Nevertheless, it is clear that public ritual performance has the ability to coalesce individuals and increase the reality of co-presence or a moment of "real" community (Inomata 2006b: 206). For Inomata (2006b) it was in this reality that shared identities and common values of the community were created through real and physical interaction of agents. As such, theatrical events become fertile ground for the constitution of a political community. According to Barrett, (1991) the anthropological literature implies that ritual is often 'theatrical or staged', 'repetitive', 'formal' and 'overloaded with symbolism'. For Turner (1967:93) the latter, dominant symbols are representative of axiomatic values that are validated throughout the ritual cycle. For example, participants

may have different expectations; however these dominant symbols contain metaphoric and metonymic associations that form a communal value and a collective focus that binds participants (Barrett 1991:5).

Politicized Rituals

Performative rituals played a vital role in the development and trajectory of sociopolitical structures (Freidel and Schele 1988a; Inomata 2001a, 2006a, 2006b; Inomata and Coben 2006; Lucero 2003, 2006; Stockett 2007), and are believed to encompass practices "that specifically construct, display and promote the power of political institutions (such as king, state, the village elders) or political interests of distinct constituencies and subgroups" (Bell 2009: 128). It is during political rites that values are presented as a legitimate and iconic cosmic order (Yant 2011). Politicized rituals consist of notable actions by agents that contribute to the production and transformation of society by promoting a sense of cultural continuity using traditional symbols while simultaneously imparting new traditions and symbols.

Although ritual can change through time, it is considered to be invariant in form because it assures the identity of the culture's symbolic material (Connerton 1989:57). However, rites, according to Lucero, (2003:525, 2006; see McAnany 1995) contain an innovative element and "memories associated with…earlier ritual experiences color the experiences of a new enactment of the rites" (Kertzer 1988:42). Nevertheless, for new ritual forms to take hold "…they must incorporate familiar, traditional beliefs and practices into more elaborate forms that situate the growing political power of particular

interest groups" (Ringle 1999:186; Lucero 2003:525). Yant (2011:49) notes the inherent layering of power in ritual, particularly the increase of power and authority to those already in power.

Lucero (2003:525) observes that the re-interpretation and successful application of family or domestic ritual activities granted leaders/rulers control of critical resources, both allocative and authoritative, (see Giddens 1979:188-195, 1984: 257-61) that were later transformed into prestige, legitimacy and thus the ability to acquire surplus from others. Therefore asymmetrical relations can be construed during political rites, when rulers insert and legitimate their own agendas into existing symbolic and religious systems (Bell 2009; Kertzer 1988; Lucero 2003, 2006; Walker and Lucero 2000). For Lucero, (2003:525) ritual does not represent a source of political power in the same way the military, the economy or ideology does, but is a way to control these intersecting sources of power. An alternative and less Machiavellian interpretation proposes that elite use of "non-elite" symbols stems more from a common cultural understanding of worldview process (David Stuart, personal communication April 2013). Stuart (2005:275-276) proposes that rulers used agricultural (non-elite) terminology not as a means of appropriation, but as a way to express and convey ritual practice through metaphor and symbolism. Such metaphors were incorporated in kingly rituals to define their position in society and to communicate this across many levels of society.

Commemorative Rituals

Commemorative rituals can be characterized as politicized. Connerton (1989:3,5) argues that, while participants in any social order must presuppose a shared memory, memories become commensurable through ritual performances such as commemorative ceremonies. One common form of commemorative ritual is characterized by its reference to prototypical persons and events. The persons and/or events create a link between the past and the present distinguishing commemorative ceremonies from other ritual forms (Bell 2009:107; Connerton 1989:61). For example, in mortuary rituals, Shanks and Tilley (1982) propose that the dominant symbol is the human corpse itself or presence of ancestors. The use of symbols or symbolic action creates an ideology of a community based on shared values. In traditional societies, the dead are often transformed into ancestors or other forms of spirits and are resignified during the handling of curated remains and commemoration rites invoking social memories of the dead for political ends (Gillespie 2001:78). Distinguished from myth, this master narrative and image of the past entails more than story telling. For Connerton (1989) such ritual performances are cult enacted.

The second form of commemorative ritual is dependent on an event, e.g. calendrical systems, perhaps lunar or solar calendars that frame certain critical dates, permitting the repetition of the same action. Lucero (2003) discusses how rituals connected to vital life events (e.g., rain, agricultural fertility and ancestor veneration) are coordinated across time and space. Both forms of commemorative ritual involve re-enactment, which shapes communal memory. "A community is reminded of its identity

as represented by and told in a master narrative" (Connerton 1989:61, 70). Carmack notes that it was during special rituals, such as Toltec war dances, marriage exchanges and succession ceremonies, that lords were anointed with yellow and black paint. And it was these activities that made Utatlan and satellite towns "marvelous", "beloved" and "magical": "They transformed towns into sacred shrines" (Carmack 1981:183).

Public and Semi-Private and Small Scale Rituals

Rituals can take place in very large-scale public settings, such as the spectacles and public events discussed by Inomata and Coben (2006:16-17), and in semi-private and exclusive, but not necessarily solitary, settings as described by Brady (1989) and Woodfill (2007). While some spatial settings for private or public rituals are clear, these divisions can be blurred and are dependent on the ritual and society. In contemporary Hopi society, both public and semi-private settings were required during the kachina ceremony. Domestic rituals in many traditional societies are subsumed under the private small-scale ritual category as well. It is clear that private and semi-private rituals were restricted either for a certain segment of society/group or for specific rites that necessitated privacy.

Most rites for the coming of the kachinas in Hopi tradition are performed in private kivas (semi-subterranean or subterranean ceremonial chambers), which have very restricted entrances and only a limited number of spectators, have access (Bell 2009:251; Triadan 2006: 165). Kivas were also reserved for respective religious societies and only open to certain members of the community. Kivas represented a much smaller and

spatially restricted space not visible to outsiders; however rituals could be heard outside (Triadan 2006). Dances and performances were held in large Pueblo plazas to commemorate the "going home" or close of the kachina season that included locals and tourists (Bell 2009). In addition to the Kachina, night dances were restricted to fewer spectators even though they were held in open plaza spaces (Triadan 2006).

Large-scale public rituals are typically held in areas where visual and physical access can be granted to the community or a large audience. Ethnohistorical writings suggest that public rituals in Mesoamerica often took place in open plazas that provided participants and spectators with visual access to such performances (Ringle and Bey 2001; Restall 2001:344-345). Traditional societies engaged in and relied upon spectacles—where the sovereign and fundamental aspects of the state (crucial elements of social production and the maintenance of power) remain visible and constantly on display (Bell 1992; 2009; Inomata 2001a, 2006a, 2006b; Inomata and Coben 2006; Lucero 2003, 2006; Ringle 1999; Turner 1967, 1979). Landa, when describing the center of Chichen Itza (Tozzer 1941:179), states that "At some distance in front of the staircase on the north, there were two small stages of hewn stone, with fours staircases, paved on the top, where they say that farces were represented, and comedies for the pleasure of the public." Inomata (2006a) notes that in ancient Maya society large plazas were designed and built to hold a large number of people, perhaps all or a large part of the community.

Semi-private rituals encompass both the public and private dimensions discussed above. In certain instances elaborate small-scale rituals have the spectator component, for example small private courtly rituals practiced in secluded locations. While they may

not have the entire community present, other elite members (intersite or intrasite elites) are present to participate, compete and/or scrutinize the performance. Perhaps it was during such times that those exorbitant displays of wealth and authority were paraded before competing elites. Such rituals may have encompassed a public element. For example, contemporary Q'eqchi' village ceremonies contain both a public and semi-private element. Certain aspects of the ceremony involve the entire community in the music, prayer and speeches, however at the end of the public ceremony the village elders are seen leaving the public gathering for a more private ritual in a cave (Woodfill 2007). Although the cave ritual is semi-private and only open to the village elders, Woodfill (2007:563) observed that the community "sees the elders leave under a cloud of billowing incense with alcohol, chocolate, and animals to be used in the ceremony". Thus, the villagers are aware of who is participating in this "private" ritual and what is being offered, blurring the line between public and semi-private.

Conversely, space and access are heavily restricted in private elite rituals or public elite rituals with a private component held in the caves in the Belize Valley (Brady 1989; Woodfill 2007:129). Even private rituals are not devoid of spectators to some degree. In many cases others were aware that the practitioner was leaving to perform a private ritual event (Woodfill 2007:557). Yant (2011:52) also notes that in private rituals a mystical element of co-presence occurs when supernaturals or ancestors were the intended audience. For most traditional societies public communal rituals and semi-private rituals engaged the concerns of the community and established a collective understanding. A group's or an individual's power can be augmented when rituals are

privatized and restricted consumption is enacted. The restriction of space and knowledge produces a form of social leverage among those who have access to the space and the activities taking place.

Chapter 3: The Three Rivers Region, Northeastern Petén

Introduction

The site of La Milpa is located within the northeastern Petén in the Three Rivers Region within the Rio Bravo Conservation and Management Area (RBCMA). The RBCMA covers an area of 256,000 acres and is the largest nature preserve in Belize (Figure 3.1). The Three Rivers Region encompasses the countries of northwestern Belize, northeastern Guatemala and a small segment of the Mexican state of Quintana Roo on the eastern margin of the Petén Karst Plateau (Dunning *et al.* 2003). The Three Rivers Region is considered an adaptive region with a number of territories, each with its own set of diverse habitats, for example the San Bartolo-Xultun, La Honradez, La Milpa, and Río Azul-Kinal territories (Garrison and Dunning 2009). Nicholas Brokaw and Elizabeth Mallory of the Manomet Bird Observatory conducted the most comprehensive investigation of the physical environment for the (RBCMA) in 1993. However, the most detailed description of the physical environment of the central Petén region (including Belize) lies in the work conducted by Cyrus Lundell (1937). More recently scholars have conducted prehistoric climate research and land use practices for the Three Rivers Region and northern Belize (Beach *et al.* 2006; Dunning and Beach 2004; Dunning *et al.* 1999; Dunning *et al.* 2003; Bhattacharya *et al*. 2011).

The region encompasses 1,600 square kilometers bordered by Rio Azul to the north and south, while the site of Chan Chich lies on southern perimeter and the Booth's River demarcates its eastern margin (Adams 1995:5).

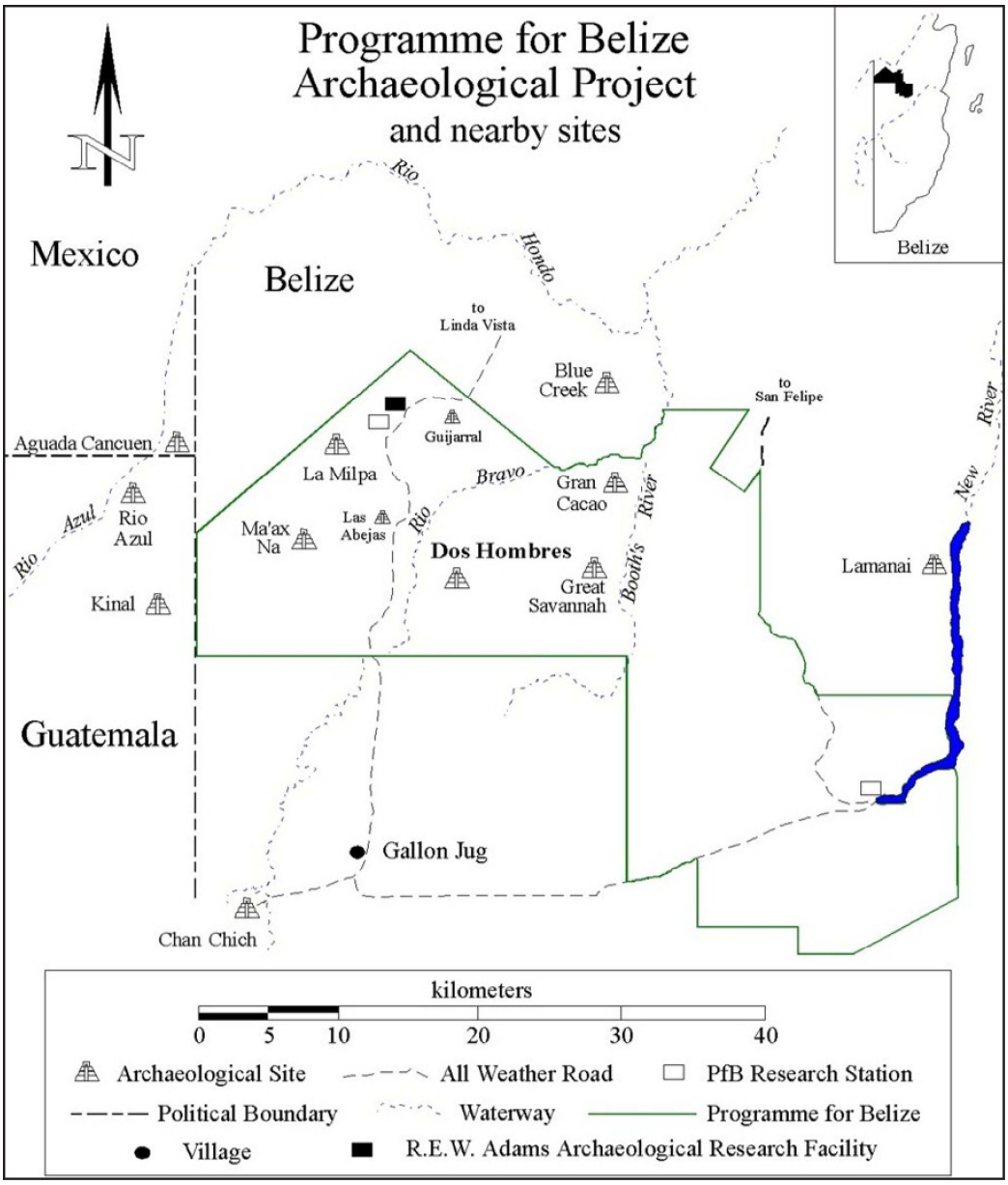

Figure 3.1. Map of the Three Rivers Region and location of selected site (Courtesy of PfBAP).

The limestone-derived Yucatan Platform created during the early Eocene epoch is accompanied by three dramatic escarpments, La Lucha, the Rio Bravo and the Booth's River (Brokaw and Mallory 1993: Lundell 1937). The sharp elevation increases and the adjacent Belize Coastal Plain and Petén plateau to the west create what has been termed the Escarpment Ecotonal Corridor (Lohse 2003). This environment with its extreme breadth of environmental resources is believed to have sustained dense populations of plants, animals, and people (Crumley 1994).

The Three Rivers Region ceramic data indicates a persistent occupation from the Middle Preclassic (ca. 800 B.C.) to the Late Classic (ca. A.D. 900) and minimal occupation during the Postclassic (Kosakowsky *et al.* 1998; Kosakowsky and Sagebiel 1999; Sullivan and Sagebiel 2003; Sullivan and Valdez 2004). The site of Dos Hombres offers the highest number of Middle Preclassic Mamom ceramic materials, while the sites of Chan Chich and La Milpa show scattered evidence of ceramics during this time period (Kosakowsky 1998 *et al.*; Kosakowsky and Sagebiel 1999; Sullivan and Sagebiel 2003). Though Middle Preclassic architecture has yet to be located within the PfB region, a Middle Preclassic single room temple, G103 sub 2, was discovered at the site of Rio Azul (Adams 1999; Valdez 1992).

Climate

The study area lies within the tropics between 17° and 18° N latitude and is considered to be a tropical temperature regime. Although there are cycles of wet and dry years for the region, the average annual rainfall is between 1500 to 2000 mm (Dunning *et*

al. 2003; Lundell 1937; Brokaw and Mallory 1993). The year is divided into two seasons, wet and dry. The dry season occurs during the months of December through May when average temperatures are between 23.6 to 29 degrees Celsius. The driest part of the year occurs during January to April (Lundell 1937). The wet season occurs between May and December when average temperature range between 29 to 27.5 degrees Celsius. The average rainfall varies greatly from year to year and at times within the region as well, however, there is very little difference in temperature throughout the year.

Physiography

This region lies on what is known as the Yucatan Platform. The platform was under the ocean during the early Eocene (58-47 million years ago) during which the accumulation of marine carbonates produced the limestone and marl formations we observe today (Dunning *et al.* 2003). Since the Eocene this platform has been shaped by erosion, slumping and faulting and has carved out a variety of physiographic features such as escarpments, uplands and *bajos* that are intimately tied to the vegetation in the region (Brokaw and Mallory 1993).

Between 13 and 2 million years ago the Yucatan Platform emerged from the ocean creating what we now call northern Belize (Brokaw and Mallory 1993). A series of terraces that increase in elevation (from east to west) were created when a trough across the eastern edge of the platform produced slumping to the west along southwest-to-northeast fault lines (Brokaw and Mallory 1993). Terraces and their frontage escarpments dominate the Rio Bravo topographic environment. Moving east to west one

will encounter the Booth's River escarpment, the Rio Bravo Escarpment, and the La Lucha Escarpment.

Large karst depressions known as *bajos* are common features in the study area and throughout the southern and central lowlands. These are poorly drained depressions, which contain organic Histosls and Vertisols (Beach 1998; Dunning *et al.* 2002). It has been proposed that in the ancient past *bajos* created perennial wetland and even lake environments used for wetland agriculture utilizing a hydrology system akin to the *chinampas* of the valley of Mexico (Dunning *et al.* 2002). Proponents of this idea also argue that major sedimentation of these lakes during the Late Classic period triggered the major settlement shifts out of most major urban centers. Today flooding during the wet months transforms these large depressions into wetlands that become desiccated during the dry season (Dunning *et al.* 2002). Bajo Azucar is the largest *bajo* in the Three Rivers Region.

Within the uplands are sinkholes, *aguadas,* formed through erosional processes (Lundell 1937). These are mostly small surface-fed ponds that retain water for a few hours and sometimes days due to their clayey impervious lining (Lundell 1937: 5). Most *aguadas* are seasonal and dry out during the dry season with the exception of the larger *aguadas* that are tied to the water-table system.

The Rio Azul, Rio Bravo and Booth's River drain into the study area and are the three principal tributaries that feed into the Rio Hondo. The Rio Bravo and the Booth's River are both considered perennial, while Rio Azul is an intermittent river (Dunning *et al.* 2003:15). During the dry months Rio Bravo is a perennial spring-fed stream that

transforms into a large river, receiving most of its water via runoff from the La Lucha and Rio Bravo escarpments and other upland areas (Dunning *at el.* 2003). Rio Bravo originates in Guatemala and flows from southwest to northeast culminating in Belize. Rio Azul originates in the northeastern Petén Plateau where it becomes desiccate during the dry months and consists mostly of a series of stagnant pools. It flows northeast into the Mexican state of Quintana Roo and subsequently eastward and into Belize. In Belize Rio Azul becomes a perennial river fed by ground water discharge (Dunning *et al.* 2003:15). Booth's River flows mostly through perennial wetlands and is spring fed during the dry season and by surface water during the wet months (Dunning *et al.* 2003).

Topography

The topographic variation in the region (uplands, terraces, embayments and lowlands) supports a variety of soil types and soil moisture regimes that influence a variety of vegetation types that range from perennial marshes to well-drained upland forest (Dunning *et al.* 2003). In accordance with Brokaw and Mallory (1993) and Dunning *et al.* (2003) and to retain consistency with other authors working in the area, the region is divided into six physical landscapes, each consisting of a unique vegetation and soil regime. Dunning *et al.*'s (2003) ecozone divisions are as follows: (1) the La Lucha Uplands; (2) the Rio Bravo Terrace Uplands and associated escarpment; (3) the Rio Bravo Embayment; (4) the Booth's River Uplands and Associated depression; (5) Azucar Lowlands; (6) La Union Karst. See Dunning *et al.* (2003) for a more formal description of these ecozones.

Vegetation

The vegetation in this region is considered a zone of wet-dry forest (Lundell 1937). Within the ecozones described by Dunning (*et al.* 2003) are various vegetation types noted by Lundell (1937), Wright (1959), and Brokaw and Mallory (1993). Although there is variation in the terminology, all forest types' categories are agreed upon. Brokaw and Mallory divide vegetation regimes into forest types in accordance with elevation. Upland forests are the most prevalent in the region and represent 46.1% of coverage. This semi-deciduous broad-leaf forest supports a canopy that is between 15m to 20 m high and is located in well-drained areas such as the La Lucha Uplands and the Rio Bravo Terraces. Tree species generally dominating Upland forests consist of, but are not limited to, *Pouteria reticulata, Drypetes Brownii, Manilkara zapota, Pseudolmedia sp., Brosimum alicastrum, Sabal morrisiana, Hirtella Americana and Ampelocera hottlei*.

Bajos within the Uplands and Rio Bravo Embayment provide the perfect environments for Scrub swamp forest. Nine percent of The Rio Bravo is covered with Scrub swamp forest. The canopy measures between 3-5 m, with an occasional species up to 10 m tall. This seasonally wet swamp forest is populated with *Haematoxylum campechianum,* the largest tree species, and *Croton sp*. A dense understory consisting of sedges and sawgrass is also characteristic of the scrub swamp forest (Brokaw and Mallory 1993). Culbert *et al.* (1989) and Kunen *et al.* (2001) divide scrub forests into subdivisions of scrub forest and mixed palm forest. A transitional forest, between the Upland and Scrub swamp forests extends over in the Booth's River Uplands, the Rio

Bravo Embayment, the Rio Bravo Terrace Lowlands and the La Lucha Uplands. Brokaw and Mallory (1993) suggest that the transitional forests are more representative of dry upland forest in their structure and composition, however the canopy is generally shorter than upland forest. Transitional forests are representative of both upland and scrub forests and contain varieties such as *Calophyllum brasiliense, Gymnanthes lucida, Manilkara zapota, Matayba oppositifolia, and Metpium brownie* as well as Mahogany and other timber species.

Riparian swamp forests represent six percent of the Rio Bravo region and mostly occur within the Rio Bravo Embayment and the Booth's River Depression along perennial watercourses (Brokaw and Mallory 1993). The wet soil produces a low canopy scattered with a few emergent tree species, *Acacia sp., Bucida bureras, and Pterocarpus hayesiss*. Cohune and royal palm dominate some areas of riparian forests. The rich soil accumulations at the base of terraces and escarpments makes cohune palm forests favorable places for agriculture. Cohune palm forest typically dominates well-drained soils in uplands environments of Booth's River Upland, and at the bases of Terrace Upland, and Terrace Lowland (Brokaw and Mallory 1993).

History of Research in the Three Rivers Region

This section discusses previous and current archaeological research conducted within the Three Rivers Region (Figure 3.1). The Three Rivers Region as perfectly stated by Sullivan (2002:197) "…provides us with the opportunity to fill in the blanks regarding

the populations living between the major sites of the Petén core to the west, Yucatan to the north, the Belize River Valley to the south, and major sites in Belize to the east."

Aside from a few superficial expeditions into the eastern Petén, this region was largely neglected until the early 1980s. Alfred Tozzer conducted the first scientific exploration in the region between 1909 and 1910, however most of his investigations were concentrated in the southwest part of the region and the site of Nakum (Tozzer 1913). In 1915 and in 1929 under the auspices of Tulane University Sylvanus Morley conducted investigations at the site of La Honradez (Von Euw and Graham 1984). J.E.S. Thompson visited the region during the 1920s and 1930s. He conducted archaeological investigations at the site of San Jose (1939) and was the first to document and name the site of La Milpa in 1938.

In the 1950s and early 1960s John Gatling, a geologist for the Sun Oil Company along with survey crews, began to document the ancient Maya sites in the region. In 1964, R.E.W. Adams and Gatling published a map of these sites. The large site of Rio Azul was discovered in 1962 by Trinidad Pech (Adams and Gatling 1964). Ian Graham documented sites in northeast and north central Petén including the site of Kinal in the Three Rivers Region between 1960-1962 (Graham 1967). Reports of extensive looting sparked a visit by Graham in 1981 (Adams *et al.* 1984). It was not until the 1980s that major archaeological investigations were conducted in the Three Rivers Region. By the early 1990s this largely neglected region had three major projects conducting intensive research.

The Rio Azul Archaeological Project

Dr. Richard E. W. Adams led a total of five archaeological seasons at Rio Azul from 1983 to 1987. Extensive information concerning the early growth and sociopolitical aspects of this region of the Petén and connections between Rio Azul and sites within the PfB, particularly La Milpa, were established (Adams 1999). During the five years of investigations settlement surveys, mapping, and excavations of major groups, including elite residential groups, G-103 and other activity groups within the site's main center (Adams *et al.* 1984; Adams 1984, 1986, 1987, 1989; 2000; Valdez 1992). Explorations of smaller centers surrounding the central precinct of Rio Azul were also conducted. Rio Azul presents one of the longest chronologies in the region. The monuments, and ceramic chronology coupled with excavations indicate an occupation that lasted from at least 900 B.C. to A.D. 800. Until the end of Early Classic period, Rio Azul was one of the largest and most politically important centers in the region and part of the Tikal city state political system.

More recently, investigations were undertaken concerning the re-exploration of the Preclassic, including Structure G-103, and conservation and restoration procedures of Tombs 1, 6, 12, 19 and Stela 2. These undertakings are part of the Archaeological Project of Bajo Azucar (PABA) directed by Dr. Fred Valdez Jr. and Licenciada Liwy Grazioso (Grazioso and Valdez 2008; Grazioso et al. 2006; Fred Valdez Jr., personal communication October 2012).

The Rio Bravo Archaeological Project

Dr. Thomas Guderjan established the Rio Bravo Archaeological Project in 1988 (1989 and 1991a). Mapping some of the larger sites, e.g., Chan Chich, E'kenha, Laguna Verde and La Milpa in the Rio Bravo and Gallon Jug area, was the main emphasis of this program. With the support of the Maya Research Program (MRP), Guderjan and others conducted additional research in the region and conducted investigations at some of the largest sites in the region: La Milpa (Guderjan 1991b); Chan Chich (Guderjan 1991c); Punta de Cacao (Guderjan *et al.* 1991); Quam Hill (Guderjan *et al.* 1991); and Blue Creek (Guderjan 1991a). The program is ongoing and has produced extensive data and provided major contributions to the culture-history of the region.

The Ixcanrio Regional Project

In 1990, prior to the Programme for Belize Archaeological Project, Richard E. W. Adams started the Ixcanrio project to investigate the sites on the Guatemala side of the Rio Bravo Region (Adams 2003). The sites of Kinal, Rio Azul and three smaller sites between Kinal and Rio Azul were investigated between 1990 and 1991 (Adams 2003).

The La Milpa Archaeological Project (LaMAP)

The La Milpa Archaeological Project was established in 1992 by Dr. Norman Hammond and Dr. Gair Tourtellot III of Boston University (BU) and continued until 2004. The project encompassed the site of La Milpa and a 6 km radius around it. During the project's twelve years archaeological excavations were conducted at La Milpa center,

along three radial transects, and at four minor centers that were discovered during the settlement pattern studies. These excavations produced a general understanding of the structure and chronology of the site. Based on the ceramic chronology the site was occupied as early as the Late Preclassic and experienced what some consider a major economic boom during the Late Classic period (Kosakowsky and Sagebiel 1999; Sagebiel 2005). The site was eventually abandoned by the Terminal Classic period along with many other lowland Maya sites. Hammond and Bobo (1994) illustrate Late Postclassic monument veneration at La Milpa.

An extensive mapping project led by Gair Tourtellot documented the variety, typology and distribution of architectural groups (Tourtellot *et al.* 1993). Nikolai Grube (1994) conducted the epigraphic decipherment of the stone monuments with legible texts. Based on Grube's decipherment, the last recorded date for La Milpa was November 28th, A.D. 780. A water management project at the site center was directed by Dr. Vernon Scarborough in 1992 (Scarborough *et al.* 1992). Overall these projects provided an understanding of the structure and chronology of La Milpa and its hinterland communities.

The Blue Creek Project

Archaeological investigations at Blue Creek have been ongoing since 1992 (Guderjan 2004, 2011; Guderjan *et al.* 1994, 2003, 2010, 2011; Guderjan and Driver 1995). The site core is located on the Rio Bravo escarpment near the Rio Hondo terminus and may been an independent kingdom that held a role as a mercantile city

during its heyday. Excavations and surveys of the site core and nearby groups produced large quantities of jade, monumental architecture, and sculpture and one of the earliest temples with a columned superstructure.

Evidence of a Middle-Late Preclassic transition was documented in a midden in front of the Temple of the Mask. The construction of public monuments in the site's core area was underway by the Late Preclassic period, but construction ceased by approximately A.D. 500. A considerable amount of effort was spent on elite residences in the site core and surrounding groups which demonstrated that major ritual terminations occurred at approximately A.D. 859 - Tepeu 3 times (Guderjan *et al.* 2003). Despite the absence of monumental architecture during the Classic period the site remained a small but economically thriving city until the mid-to-late ninth century A.D.

Programme for Belize Archaeological Project

Dr. R. E. W. Adams from the University of Texas at San Antonio established the Programme for Belize Archaeological Project (PfBAP) in 1992 (Adams *et al.* 2004; Adams and Valdez 1993; Houk and Valdez 2010; Hyde and Valdez 2010; Trachman and Valdez 2009; Valdez 2007, 2008). Dr. Fred Valdez Jr. from the University of Texas at Austin has directed the project since 1995. The PfBAP operates on the Rio Bravo Management and Conservation Area (Figure 3.1), which is owned and operated by the Programme for Belize (PfB). From its inception in 1992 to 2006 the project conducted some lengthy six-month field seasons in conjunction with short summer sessions, however since 2007 sessions have consisted of two three week summer sessions. PfBAP

initially acquired a 20-year agreement with PFB that was set to expire in 2012, but in 2004 a new agreement was reached extending the contract until 2032. To date the project has recorded over 70 sites (Valdez 2008). The PfBAP research property consists of a comprehensive array of site types such as urban centers, towns, villages and hamlets. Five cities have been identified on the property including La Milpa, the third largest site in Belize. The temporal component on the property is equally extensive and includes Maya sites dating from the Late Preclassic to Postclassic times (1000 B.C. to A.D. 1400) to sites with early historical components.

The PfBAP is the umbrella permit holder for all archaeological projects in the Rio Bravo Management and Conservation Area (RBMCA) and provides graduate students and professors from various universities from throughout the world the opportunity to conduct research in this archaeologically rich region. One of the many goals of the PfBAP is to assess and manage the cultural resources on the 260,000 acres of land within the RBMCA. Although each project has independent research goals and designs, the broad range goal for the PfBAP is to define chronological patterns that may shed light on the cultural development and decline of Maya populations in the Three Rivers Region. The regional approach, coupled with diverse theoretical underpinnings, which include Postprocessual, Processual, and Culture-Historical, is the project's trademark. Ultimately the results from this region will be incorporated into a larger corpus of data to address some of the more elusive and compelling research problems facing lowland Maya archaeology (Valdez 2008:4).

A number of independent projects have operated under PfBAP. In 1992 project researchers conducted an extensive reconnaissance study that led to the discovery of numerous undocumented sites of various size and chronological occupations (Houk et al. 1993). During the first three seasons from 1992 to 1994 major research efforts were focused on excavations at the sites of Dos Hombres, Las Abejas, Gran Cacao and Guijarral (Adams 1994; Brown 1995; Durst 1995; Houk 1994, 1996; Houk *et al.* 1993; Hughbanks 1994; Lohse 1995; Robichaux 1995; Sullivan 1997). Based on these initial excavations the region was occupied as early as the Late Preclassic to the Late Classic periods. Evidence of landscape modification for intensive agricultural practices such as terracing and water control features was uncovered near Guijarral (Hughbanks 1994). Mapping of all the major architecture and rural areas helped establish settlement patterns and chronology for these sites.

Additional surveys near the site of Dos Hombres were conducted by Hubert Robichaux (1995) and Stanley Walling (1995). In 1995 a survey team discovered a new site of significant size which was named Ma' ax Na (Barnhart and Ross 1997). These initial survey, mapping and excavation projects were very important not only for establishing the cultural resources within the PfB land, but also for determining the culture history for the region. Over the years various projects have been undertaken by different researchers from PfBAP and will be briefly described below.

The site of Dos Barbaras, primarily a Late Classic community, was mapped and excavated for eight field seasons by the Dos Barbaras Archaeological project directed by Dr. Brandon Lewis of Santa Monica College (Lewis 2005). The main research focus at

Dos Barbaras examined the organization of labor activities in small sites and the role of small sites within the political hierarchy in the RBCMA region (Lewis 2005). Richard Meadows and Kay Sunahara directed The Formalized Landscapes Project during which they conducted reconnaissance and mapping of an area measuring approximately 2500 hectares (Meadows 2005 Sunahara). Meadows and Sunahara implemented the concept of Heterarchy to explore the variation in settlement patterns fully departing from the traditional view of a centralized political authority.

Drs. Leslie Shaw (Bowdoin College) and Dr. Eleanor King (Howard University), initiated mapping and excavations at the site core of Ma'ax Na, at Bolsa Verde and in the surrounding area (King and Shaw 2004; Shaw *et al.* 2005). Excavations at Ma'ax Na and Bolsa Verde revealed the sequence of site construction and chronology, the various activities pursued at the sites and the economic, political and ideological relationship between the sites of Ma'ax Na, Bolsa Verde, Dos Hombres and La Milpa (Shaw *et al.* 2005).

Dr. Stanley Walling directs the Rio Bravo Survey project along the Rio Bravo escarpment 2 km southwest of Dos Hombres (Walling *et al.* 2005). Although reconnaissance has been a major component of this project, recent excavations at the site of Chawak But'o'ob, have revealed hydrological architecture and landscape modifications used for intensive agricultural practices as well as a ritual ball court (Walling *et al.* 2005). Dr. Jon Hageman (Northeastern Illinois University) directed the Dos Hombres-La Milpa Transect Project. He and Dr. David Goldstein conducted major paleobotanical research in middens from residential groups at Guijarral, Grupo Chispas,

Barba Group and Bronco Group. Paleobotanical data from the Dos Hombres-La Milpa intersite transect was also used to explore the variety of plants used by the Late Classic Maya (Hageman *et al.* 2007). The results indicate that up to 217 plant species were utilized by the Maya living in the residential groups tested. They also propose that special plant types were used at sites containing shrines (Hageman *et al.* 2007).

Additional projects conducted under the auspices of the PfBAP have produced invaluable data for the region, for example the settlement studies around the site of Wari Camp directed by Dr. Laura Levi (University of Texas San Antonio). The independent water management studies project directed by Dr. Estella Weiss-Krejci (University of Vienna) is continuing and is supported by the PfBAP and Boston University's La Milpa Archaeological Project (Weiss-Krejci and Sabbas 2002). Weiss-Krejci also conducted work at La Milpa East, a minor center 3.5 km from the La Milpa center (Weiss-Krejci 2008). Dr. Kathryn Reese-Taylor (University of Calgary) conducted surveys near the Guatemalan boarder (Adams *et al.* 2004). The Ancient Maya Land and Water Use Project, a joint venture between the University of Texas at Austin and the University of Cincinnati, was also conducted under the PfBAP (Dunning and Beach 2000; Dunning *et al.* 2002; Scarborough 1993; Scarborough *et al.* 1995). Dr. Brett Houk explored the site of Chan Chich on the Gallon Jug property under the auspices of PfBAP in 1996 (Houk and Robichaux 1996). Subsequent field seasons from 1997-1999, 2001, and 2012 were all conducted under a permit secured by Dr. Houk (Houk 1998).

Under the PfBAP, the Three Rivers Archaeological Project (TRAP) was initiated in 1995 and is currently directed by Dr. Fred Valdez Jr. and co-directed by Dr. Vernon

Scarborough from the University of Cincinnati. A significant number of doctoral dissertations have resulted from the Three Rivers Archaeological Project (Hageman 2004; Houk 1996; Kunen 2001; Robichaux 1995; Manning 1997; Sullivan 1997; Trachman 2005; Hyde 2011; and the present dissertation). Several doctoral and non-doctoral projects are ongoing under the auspices of TRAP and will be briefly discussed below.

In 2001 TRAP began excavations at Medicinal Trail, a small community located across the road from the Richard E. W. Adams Archaeological Research Facility. The Medicinal Trail site is a small settlement with a significant number of agricultural terraces and reservoirs where intensive agricultural and other activities were practiced. Excavations at the site were under the direction of Farnand (2002) and Ferries (2002). In the spring of 2004 David Hyde (University of Texas at Austin) began his dissertation research at the Medicinal Trail site (Hyde 2011). Based on Hyde's excavations the site may have been occupied as early as the Middle Preclassic period, one of the earliest occupations in the Three Rivers Region (Hyde and Atwood 2007). In 2008 graduate student Robyn Dodge (University of Texas at Austin) initiated excavations at the newly documented site of *Hun Tun*, not far from Medicinal Trail, consisting of several plazuela groups.

In 2002 Jon Hageman rediscovered the site of Say Kah (Say Kah sub-project), a small-medium center. Dr. Brett Houk initiated a pilot study at the site in 2004 (Houk and Hageman 2007). Dr. Grant Aylesworth joined the project as co-director in 2005. A major emphasis was placed on the architectural construction episodes and expansions and

transformations that occurred between the Early and Late Classic periods at Group A (Houk and Lyndon 2005; Houk *et al.* 2006; Houk *et al.* 2007). The discovery of a stucco panel/mask or facade on Structure A-4 Sub 1 and/or A-5 Sub1 led to an intensive investigation to determine whether it was Late Preclassic in origin. In 2009 Dr. Sarah E. Jackson from the University of Cincinnati (UC) began investigations at Group B of Say Kah. Dr. Jackson and a team of graduate students from UC explored the current view of settlement hierarchies in the Three Rivers Region and the notion that Say Kah is considered a "secondary center" within this hierarchy (Jackson *et al.* 2010).

Although most of the research conducted in the RBCMA has focused on small to medium sites, in 2007 several projects began conducting extensive and intensive excavations at the site of La Milpa, the third largest Maya city in Belize. Licenciada Liwy Grazioso Sierra (ENAH), Dr. Rissa Trachman (University of Texas at Austin) and the author (University of Texas at Austin) operated under TRAP's La Milpa Group A project. Dr. Brett Houk (Texas Tech University) and Dr. Brandon Lewis (Santa Monica College) initiated their own projects, La Milpa Core Project (LMCP) and La Milpa South Groups (LMSG). In 2009 graduate students Deanna Riddick and Debra Trein (University of Texas at Austin) began their dissertation research at La Milpa as well.

Licenciada Grazioso-Sierra, who serves as the La Milpa field director, excavated a small structure (93) attached to the western façade of Structure 3, the largest structure at La Milpa. The excavations of Structure 93 resulted in the discovery of the southwest corner and staircase of structure 93 and differences in masonry styles (Grazioso Sierra 2008). Dr. Rissa Trachman conducted preliminary excavations in Plaza A, Structure A-4,

north of Temple 1, which resulted in the exposure of the first substructure and a possible cache (Trachman 2009). Riddick conducted excavations of a small settlement just north of the site core, while Trein resumed excavations previously conducted by Licenciada Grazioso-Sierra at Structure 3.

The main goals of the La Milpa Core Project (LMCP) were to define the chronological occupation and function of Plaza B and C, and Courtyard D (Houk 2008). More importantly the LMCP investigated ancient Maya principles of site planning at the plaza scale. Two previously undocumented monuments were discovered during the initial survey, Altar B-1 and Stela 21 (Trein 2008). A cache with a large number of chert flakes (4961) was located under Altar B-1 (Trein 2008). Dr. Brandon Lewis directed excavations at the southern end of La Milpa in courtyard 149. The courtyard consists of architecture that was residential in nature as well as a small temple, perhaps the group shrine. Lewis (*et al.* 2008; Lewis 2009) suggests that this courtyard housed the inner elite of a small lineage.

Diverse, data rich, and exemplary research projects conducted under the PfBAP have produced invaluable information and elucidated the historical transitions and development of Maya society in northwestern Belize. The PfBAP will continue its regionally and theoretically diverse approach and will provide a major contribution to addressing some of the most pressing issues in Maya archaeology.

Chapter 4: History of Research and Cultural Development of La Milpa

La Milpa, the third largest Maya site in Belize (Figure 4.1), is equidistant from two of the largest Maya capitals of Tikal and Calakmul, and is flanked by the sites of Rio Azul to the west and Lamanai and Rio Bravo to the east (Hammond *et al.* 1998; Tourtellot *et al.* 1993). La Milpa may have been the boundary site between the Petén and the lowland plain of coastal Belize. The site lies within the Rio Bravo Conservation and Management Area (Figure 3.1). Established in 1988, this nature reserve consists of over 260,000 acres and borders Mexico to the north and Guatemala to the west. J. E. S. Thompson of the Carnegie Institution of Washington was the first to document La Milpa in 1938, but it was not until the early 1990s that major archaeological excavations and mapping were conducted. Under the direction of Dr. Norman Hammond and Dr. Gair Tourtellot III from Boston University the La Milpa Archaeological Project (LaMAP) conducted excavations at La Milpa every other year from 1992 to 2002. In 2007, the PfBAP initiated excavations at the site. Currently three independent institutions conduct research at La Milpa, the University of Texas at Austin, Texas Tech University (La Milpa Core Project) and Santa Monica College.


GOLFO DE MÉXICO
Yacimientos arqueológicos de la cultura maya
Fronteras nacionales
Fronteras federales mexicanas
Carretera interurbana
Corales
Pantanos
Yucatán
Campeche
Quintana Roo
MÉXICO
BAHÍA DE CAMPECHE
MAR CARIBE
GOLFO DE HONDURAS
BELICE
GUATEMALA
HONDURAS
Tabasco
Chiapas
Petén
Mérida
Progreso
Tizimín
Cancún
Cozumel
Isla de Cozumel
Tulum
Coba
Chichén Itzá
Uxmal
Edzna
Hochob
Becán
Calakmul
Río Bec
Chetumal
Corozal District
Orange Walk
Belize District
Belize City
Belmopán
Northern Lagoon
Southern Lagoon
Stann Creek District
Toledo District
Cayo Distr.
Tikal
Naranjo
Yaxhá
Uaxactún
Nakum
El Zotz
El Perú
Río Azul
Naachtún
El Mirador
La Milpa
Altun-Ha
Lamanai
Orange Walk District
Xultún
Nakbé
Noh Mul
Cuello
Los Alacranes
Calakmul
Uxul
Hormiguero
Kohunlich
Dzibanché
Santa Rita
Cerros
Chicanna
Xpujil
Balamkú
Nadzcaan
Chenes
Puuc
Río Hondo
Río Bravo
Río Grijalva
Río Usumacinta
Río Lacantún
Río Chixoy
Río Salinas
Río Pasión
Río de la Passion
Río Motagua
Río Polochic
Río Dulce
Río Amarillo
Río Ulúa
Río Chamelecón
Río Aguán
Río Coco
Río Negro
Río Sarstún
Río Hondo
Río Belize
Río Grande
Río Candelaria
Río Champotón
Río Palizada
Río Usumacinta
Río Tonalá
Río Mezcalapa
Río Chiapa
Río Suchiate
Río Motagua
Río Polochic
Río Dulce
Río Amarillo
Río Ulúa
Río Chamelecón
Río Aguán
Río Coco
Río Negro
Río Sarstún
Río Hondo
Río Belize
Río Grande
Río Candelaria
Río Champotón
Río Palizada
Río Usumacinta
Río Tonalá
Río Mezcalapa
Río Chiapa
Río Suchiate
Sierra de los Cuchumatanes
Sierra Madre de Chiapas
Sierra de las Minas
Sierra de Santa Cruz
Sierra del Merendón
Sierra del Lacandón
Sierra de Agalta
Sierra de Omoa
Sierra de Nombre de Dios
Sierra de Agua Blanca
Sierra de Apalachee
Sierra de Tamaulipas
Sierra de Guadalupe
Sierra de Tamaulipas
Sierra de Guadalupe
Sierra de Tamaulipas
Sierra de Guadalupe

dramatic, from less than 50,000 square meters to more than 183,000 square meters with the addition of the southern plazas and South Acropolis during the Late/Terminal Classic period (Hammond and Tourtellot 2003b:5). The peripheries also grew exponentially during the Late/Terminal Classic period from A.D. 700 to 900 (Kosakowsky *et al.* 1998; Kosakowsky and Sagebiel 1999; Sagebiel 2005). La Milpa was a medium size urban center in the Late/Terminal Classic (AD 750-900) during which a construction apogee and population explosion took place (Hammond *et al.* 1998). Hammond *et al.* (1998) observe that the rapid urban development at La Milpa during the Late/Terminal Classic is coeval with the resurgence that occurred at the site of Tikal after A.D. 693.

The paucity of Early Classic (A.D. 250 to 600) and early Late Classic (A.D. 600 to 700) ceramics at the site center indicates the occurrence of a hiatus that may have lasted at least two centuries from A.D. 500 to 700 (Hammond *et al.* 1998). However, looter's trenches investigated by Hammond (*et al.* 1998) indicate the slow yet complex building program during the Early Classic period. Kosakowsky *et al.* (1998) argue that the erection of stelae during the Early Classic (see Grube 1994), the architectural sequence from courtyard groups in the periphery (see Robichaux 1995), and an Early Classic royal tomb indicate a much larger Early Classic population at La Milpa than had been proposed. Kosakowsky and Sagebiel (1999) established the continued use of Chicanel-like slip into the 4th century, thus, there exists the potential for widespread Early Classic occupations at the site rather than a hiatus.

It appears that the site was abandoned during the Terminal Classic period in the middle of major renovations in Plaza B (Str. 21) and in the Tzaman Acropolis and

adjacent courtyards. Three new radiocarbon dates reported by Houk (2010) illustrate occupation and use of the Plaza B area during the Terminal Classic and into the Early Post Classic periods (Cal A.D. 890-1030).

La Milpa's architecture and sculpture according to Hammond and Tourtellot (1993:74; Tourtellot *et al.* 1993) are part of the Petén cultural sphere. Therefore, La Milpa is considered the northeastern limit of the Petén. La Milpa sustained social and political ties with Petén sites to the west and south rather than to Lamanai and Nohmul. Everson (2003:29) observed that late ceramics at La Milpa Plaza A exhibit Petén attributes rather than those of the northerly sites of Yucatan. However, by the Terminal Classic a Yucatecan style building called Gair's House (Str. 86) seems to link La Milpa to the Yucatan (Hammond 1985; Hammond and Tourtellot 1993; Hammond and Tourtellot 2004: 300).

La Milpa's core occupies an area 680 x 250 m that includes two main groups consisting of vaulted range structures, temples, ball courts and complex courtyard configurations (Figure 1.1) (Hammond and Tourtellot 1993). Reflecting the civic-religious planning ideology of ancient Maya architects the site core lies 190 m above sea level at one of the highest points in the study area on a prominent limestone ridge that was leveled to provide the foundations for large temples and range structures (Pollock 1965; Tourtellot *et al.* 1993). In similar fashion to Dos Hombres and other Late Classic lowland Maya sites, La Milpa is laid out on a north-south axis (Andrews 1975; Ashmore 1989; 1991; Ashmore and Sabloff 2002; Houk 1996). Hammond (1981a) proposed that the north-south pattern at Maya centers corresponds to complementary pairs, were the

north is associated with public ritual and the veneration of the ruler's lineage and the south serves as the private residential or palace group.

The North Group consists of Plaza A, one of the largest public spaces built by the Maya, measuring 165 x 120 m (Figure 4.2) (Guderjan 1991; Hammond and Tourtellot 1993). The Southern Acropolis was a controlled-access domain of the sovereigns for combined ritual and residential activities, while the North Group was strictly reserved as the ancestral public ritual arena (e.g., Ashmore 1986, 1989, 1991; Miller 1988). Four of the largest pyramidal structures (Strs. 1, 2, 3 and 10), two ballcourts (Strs. 6, 7, 11 and 12), two large range structures (Strs. 8 and 9), a palatial complex (Strs. 9, 13, 14 and 15), and 16 of the 22 known stelae, constitute the North Group.

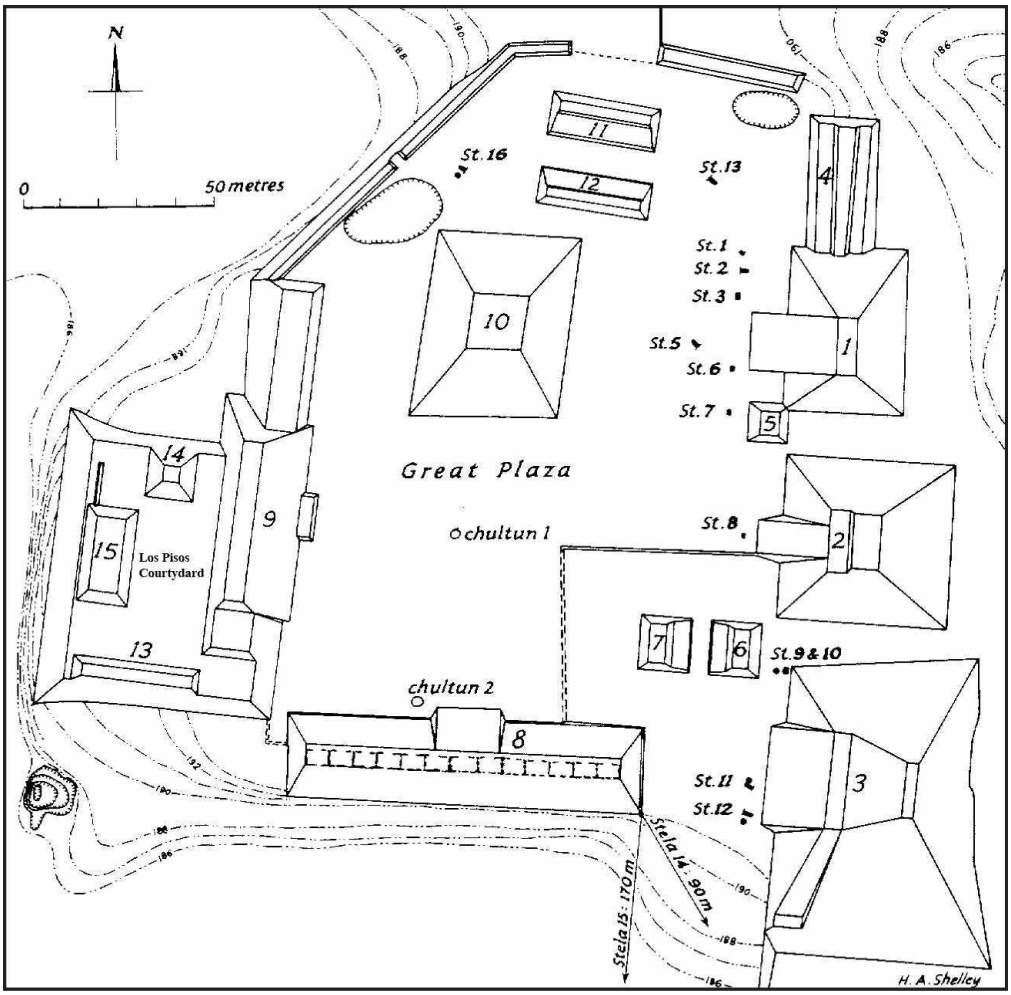

Figure 4.2. La Milpa, North Group (From Tourtellot *et al.* 1994).

The southern group is connected to the northern group via a causeway (*sacbe*) and consists of two plazas, B and C, and is also connected via a causeway to a succession of plazas and building complexes referred to as the Tzaman Acropolis (Figure 1.1). Plazas B and C and the Acropolis are considered late additions to the site core dating to the Late/ Terminal Classic periods (A. D. 750-900) (Hammond *et al.* 1998). Houk (2008) has

documented evidence of trace amounts of Late Preclassic ceramics in the deepest layers of Plaza B test pits which may indicate some minor occupation during the Late Preclassic period. In 2008 a Late Preclassic structure was located within the core of Structure 27 (Houk and Smith 2010). The Late Preclassic date for this building is based on the heavy stucco apron molding on five steps (Padilla and Smith 2009; Zaro and Houk 2012). The function of the architecture in the southern courtyard groups and the Acropolis is not well understood, but it is believed to have housed various sects of the ruling elite while the Acropolis served as the royal residence (Tourtellot *et al.* 1994; Tourtellot *et al.* 2003).

The data generated during the mapping and settlement pattern studies of La Milpa (Rose 2000:77; Tourtellot *et al.* 1996) illustrate a modest development of the site during the Late Preclassic and Early Classic periods. These studies also show that most of the activity took place within the site center, in particular Plaza A, a settlement pattern visible at many sites throughout the lowlands (Cerros, Uaxactun Group E, Ceibal Group A, Colha and Tikal's Mundo Perdido). A major transformation or shift in settlement patterns occurred during the Late/Terminal Classic periods with a substantial settlement growth outside the center's periphery including the development of agricultural features (rural terraces and berms) confirming that La Milpa flourished into a large urban center during the Late/Terminal Classic period (Tourtellot *et al.* 1996).

The water situation must have been a difficult one; a large *aguada* 100 m across southwest of the site center appears to have been the only permanent water source known at La Milpa (Hammond and Tourtellot 1993). It may have been the same *aguada* that was dry when Thompson arrived in 1938 consequently cutting his research efforts short

(Hammond and Tourtellot 1993; J. E. S. Thompson, field notes, C.I.W. Field notebook 215:9). This must have stymied his research and interest in La Milpa since he only mentions it in a site index (1939) and in the Carnegie Institution's Year Book for 1937-38 (1938). Two small reservoirs located south of Plaza A also provided water for La Milpa inhabitants (Scarborough *et al.* 1995).

EARLY RESEARCH

Thompson 1938

The third largest site in Belize was named by J.E.S. Thompson in 1938 "La Milpa" ("cornfield") because the nearest *chiclero* camp a few miles away had a small milpa to supply the men with fresh maize during their months of seeking mature sapodilla trees to bleed for latex (Hammond and Tourtellot 2003a: 36). According to Thompson's field notes (Hammond 1991a) the site was discovered by Samuel Thompson, a *capataz* [foreman] employed by Eduardo Juan, a subcontractor for Salvador Espat. At the time of Thompson's visit, La Milpa was owned by the Belize Estate Company (Thompson 1939). On March 29th, 1938 Thompson reached the site only to leave after three days of survey and documentation. Afflicted by dysentery, low funds and the lack of water at the site prompted his departure. Nevertheless, he was able to conduct a tremendous amount of mapping and he documented all the major architecture and visible stelae. He also conducted selected excavations during those three days.

He illustrated and documented the location, dimensions and condition of 12 stelae, 9 of which were clearly carved (J. E. S. Thompson, field notes, C.I.W. Field

notebook 213, 215), and deciphered the only known inscription at La Milpa from Stela 7. A sketch of a site map illustrating the main plaza was also produced. Excavations in search of caches under Stelae 5, 8 and 9 were unproductive and there is no record of any material remains (Hammond 1991a). Stela 7, the only monument with relatively preserved glyphs, was photographed and a rubbing was produced. Stela 8 was only photographed and according to Thompson both exhibited small battered altars set in front. He was the first to decipher the date on Stela 7 which is the only monument with the Initial Series on the northern narrow side (9.17.10.0.0.) and the calendar round date of Ajaw 8 Pax on the front (Gregorian Calendar date of November 28, A.D. 789). The backside of the stelae has preserved text arranged in a cruciform panel. Recognizable evidence of written text was only present on two other stelae, most of which has long since eroded. The site's Southern Group complex went virtually undocumented with the exception of Thompson's cursory inspection of it on the way back to the chiclero camp located south of the site.

Despite the fact that Thompson himself stated the following "there seems little doubt this is one of the most extensive sites, probably the most extensive in British Honduras," La Milpa is only mentioned in the appendix of his San Jose excavation report (1939:280). Thompson was unimpressed with the site's size and/or architecture; therefore a large and costly expedition was never launched. After Thompson's work the site remained virtually untouched by researchers for another 40 years.

Research After 1938

After Thompson's work investigations at La Milpa were minimal. In 1978 it was reported that Elizabeth Graham, the Archaeological Commissioner of Belize (1977-1979), visited the site (Hammond 1991a). The following year two archaeological assistants and Bill Wildman from the Belize Department of Archaeology visited and made a sketch map of the site (Guderjan 1991; Hammond 1991a). According to Hammond (1991a) David M. Pendergast and H. Stanley Loten also made a sketch map in 1970. Archaeologists from the Department of Archaeology documented extensive looting at the site in the 80s. It was not until 1988 that Ford and Fedick (1988) and Guderjan (1989) conducted the first serious research at the site.

Research during the late 1980s

Ford and Fedick (1988) recorded the Loran coordinates and the physical location of La Milpa as 17º 49'16" N and 89º 03' 21" W, however when they arrived at "Las Milpas" they realized that it might be the same site, La Milpa, reported by Thompson in 1938. Using the tape and compass methods they documented the dimensions of the central precinct as 500 m x 800 m, the monumental architecture covering over 32-40 hectares and Plaza A, measuring 130 m x 160 m (Ford and Fedick 1988: 8). They produced sketch maps of the Northern and Southern groups including the courtyard under investigation. During their survey a total of 18 courtyards and 60 major structures measuring between 18-25 meters was discovered (Ford and Fedick 1988:10). Based on the size/rank model proposed by Adams (1986; Adams and Jones 1981) this data places

La Milpa as one of the highest size and ranked Classic Maya sites "…on a par with major centers around Tikal including Yaxha and Uaxactun (Ford and Fedick 1988:10)." Final survey data established La Milpa as "a rival to Caracol" (Ford and Fedick 1988:10).

Ford and Fedick also documented substantial looting activity that had occurred between 1979-1981. They found 41 trenches in many of the larger structures and noted that some of the looting was very recent (Ford and Fedick 1988: 9; Hammond and Tourtellot 2003a). Although fewer looters' trenches were encountered at La Milpa compared to El Pilar (60) the trenches at La Milpa were very deep and much larger compromising the stability of many the large structures at the site.

In addition to the work conducted at the site center, Ford and Fedick (1988) also explored an area north of the main center where they documented twenty-four structures of varying size. Based on the number of structures found outside the core area they determined site density of 240 strs/km^2, higher than Tikal (190/km^2) and Yaxha (110/km^2), however some consider such approximations too large. Ford and Fedick argue that these large figures are due to the high proportion of well-drained uplands in the region and the excellent land resources, "…the very area where La Milpa is situated" (1988:11). They considered La Milpa to be one of the largest centers in the area, perhaps larger or at least equal in size to Rio Azul, Lamanai and Nohmul (Ford and Fedick 1988:10).

In 1988, Dr. Thomas H. Guderjan and his team started the Rio Bravo (RB) pilot project to conduct formal surveys and mapping of Maya sites including La Milpa, Chan Chich and other sites (Guderjan 1991a, 1991b). The RB project mapped La Milpa's core

and surrounding area covering an area of 1 x 1/2 kilometer. Although their research did not extend past the 1 x 1/2 km area, the RB team proposed that La Milpa is not as densely packed as the site of Rio Azul, but more densely occupied than other sites in the area such as Chan Chich and Punta de Cacao (Guderjan 1991a). The informal survey conducted by Ford and Fedick (1988) did document house mounds and courtyards at least 5 kilometers east of the site, suggesting that the site boundaries extend 5 kilometers in all directions. Guderjan believed that a more formal assessment was necessary before the site's occupation boundaries could be defined.

The RB Project documented 85 structures and investigated and profiled various looters trenches throughout the site. The project also assessed a number of the stelae located in Plaza A. Based on their measurements the size of Plaza A was slightly different (170 m x 110 m) than Ford's and Fedick's (1988) measurement. The number of courtyards located within the core area increased to 21, slightly higher than Ford and Fedick had initially documented in 1988. The RB Project investigated the development and occupation of the site using ceramics from the looters trenches, stelae chronological diagnostic styles and small clearing operations (Guderjan 1991a). Two large *chultunob* aligned in a north-south axis were also documented in Plaza A.

Looter's trenches permitted the evaluation of construction phases of the largest structures in Plaza A, Structures 1, 2, 3, and the ball courts located on the north and east end of the plaza). While there is no question concerning the ball court in the north end, Guderjan (1991a) expressed skepticism about the authenticity of the proposed ball court on the east end of the plaza, as did Hammond during his visit in 1990. The east ball court

looks similar to Yaxchilan ball courts in size and form (see Andrews 1975). Structure 1 has at least seven construction phases with a small building constituting the earliest construction and increasing in size through time (Guderjan 1991a). A possible tomb appeared to have been constructed between the 3rd and 4th construction phases of the structure, but according to Guderjan it was looted and only the unpainted plaster-lined tomb sealed with alternating layers of chert debitage, aggregate and limestone slabs was left intact (Guderjan 1991a). By the 6th construction phase the building is believed to be habe been at least 27 or 28 meters in height and decorated with a complex stucco façade, probably similar to the large stucco facades found at sites like Cerros, Lamanai, Uaxactun and Kohunlich (Guderjan 1991a).

Based on the ceramic artifacts found in association with Structures 1, 2, 3 and 5 and plaza fill at the chultun entrances, and near Stela 10, Guderjan (1991a) proposed that Plaza A (the Great Plaza) became a formalized space during the Late Preclassic with continuous construction and use until the Late Classic period. These dates were also proposed by Ford and Fedick (1988). The courtyard group under investigation, the Los Pisos Courtyard, was also explored during this survey. Guderjan described the remarkable location and secluded nature of this courtyard. A chronology for this courtyard was generated from the recovered ceramics out of a looter's trench on structure 14. Based both on ceramic data and stelae, Plaza A and the Los Pisos Courtyard were constructed and in use from the Late Preclassic to the Late/Terminal Classic Periods (400 B.C. to A.D. 900).

The RB team surveyed and mapped the four contiguous courtyards that make up the southern plaza complex. The second largest, Plaza B, measured approximately 50 x 80 meters and has one of the largest structures within its limits, Structure 21. The third largest, Plaza C, measured 50 x 60 meters and is dominated by Structure 32 while Structure 25 is the principal building in Courtyard D, which measured 35 x 25 meters. The survey revealed that all the plazas have primary and secondary entrances with the exception of Kotanil, which was completely enclosed by the structures forming Plazas B, C and D. Guderjan (1991a) argued that Kotanil Plaza was an elite residence that held a position of symbolic importance. Late Classic period ceramic data was only recovered from Courtyard D looter's backdirt. It appears that the these plazas were all constructed and occupied late in La Milpa's history, however dates were not verified for Plazas B and C by the RB Project. Although the RB project explored the Tzaman Courtyards, the southern most elite acropolis, most of the data generated pertains to the relationships between and additions to Structures 32-36, Structures 36-38 and 39. Late Classic material was only collected from Structures 35 and 37, but Guderjan (1991a) does not discount the possibility of an earlier construction program for this complex.

The RB team also noted two large reservoirs and other water control features, confirmed by Vernon Scarborough (*et al*. 1995), located between Plaza A and the southern complex and throughout the surrounding area. The larger of the two (A) is located directly south of range structure 8 and covers approximately 14,000 square meters. Reservoir B, the smaller of the two, is located directly north of Plaza B and covers approximately 5,000 square meters. Groups southwest of Structure 16, also

known as the Structure 54 Complex, and Stelae 11 and 12, as well as, Altar 5 were documented. The team also discovered linearly arranged large rocks and small boulders at three locations, which were thought to be check dams.

Although most of the work conducted by the RB team consisted of a formal survey of the site's core and outlying regions, the looter's trenches provided a large amount of chronological information and revealed the construction phases of some of the largest structures at the site. Guderjan (1991a) argues that La Milpa was a large Late Preclassic site akin to sites such as Cerros, El Mirador, Kohunlich and Nohmul and had an extensive occupation that lasted until its final abandonment during the Terminal Classic period. Thompson made a similar claim in the late 30s.

RESEARCH FROM THE 1990S THROUGH THE EARLY 2000S: THE GROWTH AND DEVELOPMENT OF LA MILPA

In 1992 Norman Hammond and Gair Tourtellot conducted their first year of archaeological research at the site under the auspices of Boston University-National Geographic Society and established the La Milpa Archaeological Project (LaMAP) (Hammond and Tourtellot 1993). New Loran coordinates placed the site core approximately 1 km further north at 17º 50'06" N and 89º 03' 06" W (UTM 16Q BQ 2-82-637E, 1972-929N). According to Hammond and Tourtellot (1993), the main objective of the project was to map the settlement pattern of the site core and periphery region, and explore their relationship to the landscape in order to understand the ancient city in its environmental context. In addition to mapping, they carried out extensive

surface collections, selective test excavations to explore the architectural history of the site core, and re-recorded the stelae first noted by Thompson. The most extensive excavations took place in the southern Acropolis area.

Several dissertations were generated during the project: Ancient Maya Community Patterns In Northwestern Belize: Peripheral Zone Survey At La Milpa and Dos Hombres by Hubert Robichaux (1995); A Study of Late Classic Maya Population Growth At La Milpa, Belize by John Rose (2000); A Study of An Ancient Maya Bajo Landscape In Northwestern Belize by Julie Kunen (2001); Terminal Classic Maya Settlement Patterns At La Milpa, Belize by Gloria Everson (2003); and Shifting Allegiances At La Milpa, Belize: A Typological, Chronological and Formal Analysis of the Ceramics by Kerry Sagebiel (2005).

North Group

LaMAP determined that La Milpa's public architecture expanded over an area covering 650 x 400 meters. Plaza A, one of the largest public spaces constructed by the Maya measured nearly 20,000 m^2 (Figure 4.2). Large built spaces such as Plaza A are believed to have been used for large community public ritual (Inomata 2006a). Up to 87% of La Milpa's populations could have been accommodated within this space based on population estimates, the size of Plaza A and Inomata's (2006a) proposed estimates for the number of people in plaza space (See Table 1). Dahlin *et al.* (2010) discuss the multiple uses of contemporary public plazas as possible analogies for ancient Maya spaces, e.g., as places where large groups gathered to celebrate festive events (Trafalgar)

to places where pronouncements of the state and military events took place (Tiananmen Square). A test pit in the center of Plaza A revealed Late Preclassic construction deposits directly underneath the final plaza surfacing episode (Hammond and Tourtellot 1993).

Plaza La Milpa (est. pop 50, 000)	Area	Capacity .46m^2/person	Capacity 1 m^2/person	Capacity 3.6 m^2/person
Plaza A	20,000	43,478 (87%)	20,000 (40%)	5,555 (11%)

Table 4.1. Plaza A, size and estimated capacity, (adapted from Inomata 2006a, Table 1).

Temples and Structures

Structure 1 is the tallest temple at La Milpa standing 24 m above the plaza floor (Hammond and Tourtellot 1993). It lacks a superstructure and was originally thought to have been of Late Preclassic construction based on its flattop and rough masonry (Hammond and Tourtellot 1993:72; Tourtellot *et al.* 1993: 102; Tourtellot *et al*. 1994:12). Guderjan (1991a) located six construction phases within this structure, most of which are Late Preclassic construction phases. Due to the multiple phases and early construction history, Hammond and Tourtellot (2003a) argue that this building may have been the initial ceremonial building at the site. Structures 1 and 10 were constructed on the same axis and were assumed to be coeval for that reason (Hammond and Tourtellot 1993). It was initially believed that this temple had an outset staircase at its base, however careful clearing and re-evaluation exposed a Late Classic two room (Str. 199) vaulted building butted up against the western façade of the temple (Tourtellot *et al.* 1994). It is believed that an Early Classic Stela 20 was enshrined within Str. 199 (Hammond 2001).

One of the most significant find was the discovery of an Early Classic royal burial, perhaps of an Early Classic ruler between 35-50 years of age, located at the northwest corner of Temple 1 (Hammond *et al.* 1996). This is the first and the only undisturbed royal burial found to date. The tomb appeared to be a *chultun* that was enlarged and modified with the construction of a stone feature built into the small chamber. The individual had endured several injuries during the course of his life and lost his teeth prior to his death according to the analysis conducted by Frank and Julie Saul. The tomb was ceremonially closed or covered with alternating layers of limestone slabs and approximately 17,000 chert flakes (Hammond *et al.* 1996; Hammond and Tourtellot 2003b). This burial may be the Early Classic ruler portrayed on Stela 20 linking the Early Classic ruler with the apogee of the Late Classic at La Milpa (Hammond 2001: 268). Caching activity of Early Classic ceramic vessels in front of the building is thought to be coeval with the burial (Kosakowsky and Sagebiel 1999).

The funerary furniture was not consistent with trappings traditionally associated with royal tombs of the Maya lowlands; nevertheless the elaborate construction suggests a royal tomb (Hammond *et al.* 1996). Five pottery vessels including an elaborate slab footed tripod cylinder were located on the floor and under the individual suggesting to the excavators that he was placed on a raised wooden litter (Hammond *et al.* 1996). The individual was adorned with a jade and *Spondylus* shell bead necklace, ear ornaments and a vulture head pendant that Hammond *et al.* (1996) interpret as the "vulture ajaw." Two distinctly designed gray obsidian ear spools were also part of the grave good assortment (Hammond 1996). Although the ceramics date to A.D. 450±40, an AMS radiocarbon

date places the date of death between A.D. 220 and 350. It has been suggested that this individual and unmarked grave falls more in line with the later fifth century, perhaps when La Milpa was in decline (Hammond and Tourtellot 2003a). The disparity between the ceramics and radiocarbon date may be attributed to ritual re-entry during which vessels from a different time period were placed with the individual, a paradigmatic practice among the Maya.

The paucity of royal tombs is mostly attributed to looting activity. Looters may have already dredged such deposits, especially during the late 1970s and early 1980s when the heaviest looting occurred. Most if not all of the temples and large range structures have evidence of looting activity. For example, during the 1990 investigations, the Rio Bravo Archaeological Project encountered ceramics typically associated with burials in the backdirt of a looter's trench on Structure 25 in Courtyard D (Guderjan 1991a: 7). Houk (2008) compares the ceramics encountered by Guderjan to those recovered from a looted tomb at the site of Bolsa Verde (Sullivan and Sagebiel 2003: 34) and a burial/cache excavated from a range structure at the site of Dos Hombres (Houk 1996). McAnany (2001:145) notes the lack of lavish tombs, hieroglyphic text and exorbitant palatial architecture in northern Belize and even suggests the possible absence of institutionalized kingship in the region, but I think she overlooked the site of La Milpa.

Although it is not known if the deposit encountered by Guderjan was in fact associated with a royal tomb, the individual held great significance since this structure is considered to have served as the eastern shrine/temple for the group. There is also mention of a possible royal tomb in the looted Structure 199. This two room vaulted

structure within Temple 1 would have made a perfect candidate for the interment of a La Milpa royal (Hammond 2001), however there is no evidence of artifacts or remains of a royal tomb. Another explanation for the scarcity of royal tombs is simply that not enough deep penetrating excavations have taken place in the major temples at the site.

While the LaMAP conducted work on the summit of Structure 4, Trachman initiated new excavations in 2007 and 2008. Trachman (2008, 2009) proposed that this building may have served as a reviewing stand for the North Ballcourt or was symbolically associated with either Temples 1 and/or 3 and used as an elite residential area. Reviewing stands are present in Copan's West Court, however at Copan the reviewing stand is believed to have been a place of sacrifice based on iconographic and textual evidence (Webster 1988). Hammond *et al.* (1998) indicates that this structure was elaborately decorated with modeled relief polychrome stucco, similar to coeval Strs. 1, 2, 3 and 5. In 2008 Trachman recovered large fragments of painted molded J-scroll stucco confirming Hammond *et al.* (1998).

Three plaster floor and filling episodes were discovered in the plaza just west of Structure 4 suggesting 3 construction episodes for the building (Trachman 2008). While more thorough investigations are needed to determine the building's association with Structures 1 and/or 3, Trachman (2008) was able to ascertain that this building was likely associated with the North Ballcourt and served as a viewing stand for ball games and other activities in Plaza A. According to Trachman (2008) the building is only a short distance from the court and lies perpendicular with the ballcourt's central axis. The central stairway also appears to line up with the central axis of the court. The most

convincing evidence are the steps that run across the western façade of the structure that would have provided a perfect seating area for viewing ball games (Trachman 2008).

During the 2009 Season Dr. Aylesworth from Mount Allison University conducted a soil resistivity survey that covered an area of 10 x 12 m in Plaza A that was subsequently ground-truthed through excavation. The most significant find was a previously unknown Late Preclassic building constructed on a plaza floor located on the northeastern façade of Structure 8 (Aylesworth and Suttie 2009). The building was constructed of finely cut limestone blocks and plastered on the external surface. Some parts of the structure were constructed of smaller limestone blocks (Aylesworth and Suttie 2009:12). Formative ballcourts in the Belize River Valley and nearby regions have been documented at the sites of Nakbe, Colha, Cerros and Pacbitun (McAnany 2001) thus this structure could be a Formative ballcourt.

Temple 5, the small structure between Structures 1 and 2, had three construction phases based on the looter's trench, two of which may have been part of the same construction program corresponding to the erection of Stela 7 (Figure 4.3) (Hammond and Tourtellot 1993; Tourtellot *et al.* 1994). The ceramic data indicate that that the earliest substructure consisted of a small pyramid or platform dated to the later part of the Early Classic period followed by a second enlargement and an upper terrace supporting the superstructure that is visible today. The architectural program of this building was composed of a single room structure of thick masonry walls with a niche (Tourtellot *et al.* 1994). This one room structure probably functioned as a shrine. This shrine is associated

with and coeval with Stela 7. Structure 5 is the only building to date that has undergone consolidation.

Figure 4.3. Stela 7 and Structure 5, La Milpa, Belize.

The two large range structures in the North Group, Str. 8 along the south side and Str. 9 enclosing the west side of Plaza A, are thought to have functioned as administrative buildings during the Late and Terminal Classic periods (Figure 4.2). Based on preliminary assessment of the architectural program, Structure 8 enclosed the south end of the main plaza and was the only structure with evidence of a walled superstructure with approximately 13 rooms (Hammond and Tourtellot 1993). Tourtellot (*et al.* 1993) note the significance of the number 13 in Maya mythology when the 13 gods of heaven

stood up to the 9 lords of the night. Two suboperations explored the construction date for Temple 10, but failed to firmly place it within the Classic period. Schultz *et al.* (1994) have argued that the Late Classic North Ball Court was purposely aligned east-west to avoid any interference with Temple 10. This argument assumes that Structure 10 predates the court. Hammond *et al.* (2000) have argued that Strs. 10 and 9 were coeval elements of the Late Classic architectural program. Str. 10 is believed to face south toward Str. 8. Hammond and Tourtellot (2003b) argue that these two structures form a "palace-temple" pair. This settlement pattern is also proposed for Strs. 2 and 9, but with an east-west relationship.

The largest building in Plaza A, Structure 3, measures 75 x 50 m at its base and was divided into three separate elements, 3, 93 and 94 during the mapping project conducted by Tourtellot—3 consisting of the main pyramidal structure, 93 consisting of the smaller structure attached to the western façade of Structure 3 and structure 94 attached to the southwest corner of Structure 3. The construction program appears a bit peculiar and perhaps disjointed. Only half of Structure 3 faces Plaza A while the southern half faces the eastern end of Structure 8 and the South Ballcourt blocks part of the view from the plaza. Hammond and Tourtellot (2003b) propose an Early Classic foundation for Str. 3 as well.

Hammond and Tourtellot briefly explored this structure and a unit at the base of the western façade of Str. 93 revealed a large cache of lithic flakes (Norman Hammond, personal communication 2011). Grazioso also briefly explored the structure in 2007. Anabella Coronado assisted Grazioso and conducted a study in the large looter's trench

located on the north end of the western façade of Structure 93 and was able to document the various construction episodes and a different masonry construction within the substructure of Str. 93. The substructure was constructed from large rectangular blocks, double to three times the size of the last construction phase of the structure. Furthermore, the limestone blocks in the substructure consisted of a much harder, more robust material.

Since 2009 graduate student Debora Trein has conducted excavations of Structures 3, 93 and 94 and the sacbe. Trein's research design departs from the traditional investigations concerning monumentality in site centers where elites dominate these spaces to demonstrate their social and political power through ritual. Trein sets out to explore how "monumental architecture of La Milpa was used and accessed by different socio-economic groups in Late Classic Maya society" (Trein 2011:41). An elemental component of this research design was the investigation of work/activity and transit spaces near the vicinity of Plaza A (see Trein 2010).

Excavations have thus far revealed the last construction phase (Late/Terminal Classic) of Structure 93 and a staircase leading up the western face of Structure 3 as well as a plaster floor adjoining steps leading to the upper staircase of Structure 3 (Trein 2010). As with all construction at La Milpa, the last construction phase of Str. 3 was intensive and expansive (Trein 2010). A plaster floor 25-30 cm thick suggests that the second to last construction episode for this building was substantial as well. Excavation of Str. 94 (southwest corner of Str. 3) also illustrated the copious and intensive nature of the construction of Str. 3 during this period (Trein 2010).

On the northeastern side of the building, huge quantities of obsidian and chert debitage and broken biface fragments were recovered—approximately 4,207 pieces of chert debitage (Trein 2011). This artifact assemblage was located on what is presumed to be the last plaster floor for the area and ceramics associated with the deposit date to the Late/Terminal Classic times (Trein 2011). A tool kit, possibly used for quarrying, was located in a unit on the southeastern side of Str. 3 (Trein 2011). The excavator proposes that this tool kit may be associated with quarrying activities of the Late/Terminal Classic period.

The most significant find was located in the topsoil on the landing of the lower staircase (Str. 93). An offering consisting of obsidian blades, obsidian cores, mano and metate fragments, green stone fragments, Postclassic incensario fragments and a complete lenticular biface most likely associated with the Postclassic site veneration that occurred at the site (see Hammond and Bobo 1994; Trein 2011). This is one of the few Postclassic offerings that have been found in such a context. Most of the offerings documented by Hammond and Bobo (1994) were set at the base of stelae. This is the largest building at the site in volume and four associated stelae are still in situ indicating the importance of this building during La Milpa's heyday and into the Postclassic period.

At the west end of Plaza A, to the east of the western acropolis (Los Pisos Courtyard), a small rectangular Yucatecan style building with low bearing walls (Gair's House) was constructed during Postclassic times. Hammond and Tourtellot (1993:74) assert that this building was constructed after Plaza A no longer functioned as a ceremonial space and the La Milpa center was abandoned (Hammond and Tourtellot

2004: 300). Their excavations recovered large numbers of domestic pottery, consisting of storage jars and basins, emphasizing its domestic function (Hammond and Tourtellot 1993:74). This structure possesses strong correlations with structures (Structures 132, 130 and 141) excavated by Hammond (1985) at the site of Nohmul, which have "strong architectural and ceramic links with Tecep and Postclassic Yucatan." Tecep is the conflation of the Terminal Classic and early Postclassic in Belize (Hammond 1991c:8). Although La Milpa is thought to have participated within the Petén cultural sphere, Gair's House may be an indication that there was some influence from the north very late in La Milpa's history. Hammond and Tourtellot propose an invasion, emulation or perhaps migration of the Yucatecan cultural movement, just as was the case for nearby Rio Azul during this period (see Adams 1990: 35).

The Los Pisos Courtyard

The courtyard (Group 88 Acropolis) under investigation is located on the west end of the plaza (Figure 4.2). Structure 8 is only 2.5 meters southeast of the courtyard and closes off the southern side of the Main Plaza. This palace complex consists of four structures (9, 13, 14 and 15) three of which (13, 14 and 15) are significantly smaller than the other structures in Plaza A. Structure 9 is one of the largest range structures and closes off the courtyard from main plaza. Hammond believes that range Structure 9 was originally smaller and modified with a southern addition during the Late/Terminal Classic times (personal communication 2011). Hammond and Tourtellot (1993) propose that the acropolis served as a royal residential compound because of its size and

defensible location. The author provides a thorough discussion of the architectural development of this courtyard, the Los Pisos Courtyard, throughout the dissertation.

Ballcourts

Tourtellot (1993) and Schultz (*et al.* 1994) argue that both the South (Strs. 6 and 7) and North Ballcourts (Strs. 11 and 12) were late additions to the plaza construction program (Figure 4.2). This interpretation is based on the position of the South Ballcourt, which blocked the line of sight from Plaza A to Structure 3 indicating a later architectural program. Excavations conducted in 1993 confirmed the Terminal Classic date for both ballcourts (Hammond and Tourtellot 1993; Tourtellot *et al*. 1994; Schultz *et al.* 1994). The North Court is located at the main entrance into Plaza A and north of Structure 10 while the South Court lies between Structures 2 and 3, blocking the southern entry into the plaza and perhaps increasing the exclusive nature of Plaza A. In addition to partially blocking the northwestern corner of Structure 3, the Southern Ballcourt also blocked Stela 10 and its accompanying altar. The placement of both courts, at the site's main entrances blocking off and restricting Plaza A, emphasizes a prominent construction program prior to the abandonment of La Milpa.

The North Court possesses an east-west alignment and occupies an area measuring approximately 32 m^2 (Schultz *et al.* 1994). Its location north of Structure 10 may have influenced its east-west alignment; a north-south alignment would have interfered with Structure 10. This argument assumes that Structure 10 predates the court (Schultz *et al.* 1994). Stelae 13 and 16 both plain stelae are positioned east and west of

the ballcourt. Stela 13 is directly between the court and Structure 4, while Stela 16 is positioned north of Structure 10 and in line with the ballcourt. It appears that the stelae are associated with the court given their independent locations, which fall outside of the stelae alignment found in Plaza A. Stelae 13 and 16 seem not to have been erected in their present locations, but have been moved around in ancient times or during the proposed site veneration that took place after the site's abandonment (Schultz *et al.* 1994; Hammond and Bobo 1994).

Excavations during the 1992 field season revealed the ballcourt's dimensions and architectural elements. Structure 11 measures 26 m in length on the alley face and a bit shorter on the backside, measuring approximately 25.5 m, 11 m wide and 2.5 m high (Schultz *et al.* 1994). Profile maps indicate a sloping bench and playing alley approximately 7 x 26 m. A staircase on the southern facade makes it distinct from its counterpart, Structure 12; otherwise they share similar dimensions and form. This ballcourt resulted from a single construction program with a small addition of ashlar blocks (Tourtellot *et al.* 1994).

The South Ballcourt located between Structures 2 and 3 has a long axis that is parallel to the fronts of Structures 2 and 3 and the stelae associated with these temples (Schultz *et al.* 1994). The court lies in an elevated terrace area that was constructed to raise this area above the rest of Plaza A (Hammond and Tourtellot 1993). The following dimensions were established through excavations and looter's trenches: playing alley is 19 x 5 m, 19 m in length, 16 m wide, and 5 m high. The building program for this ballcourt was much more complex than that of the North court, consisting of at least eight

construction phases, of which the last two were modifications (Tourtellot *et al.* 1994). Their constitution and dimensions have lead Schultz (*et al.* 1994) to believe that each court served a different purpose. They argue that the North Court was less ceremonial thus used more regularly, while the South Court was only used during exalted ceremonies. For a more through discussion and synthesis of the ballcourts at La Milpa see (Schultz *et al.* 1994).

The most significant aspect of these two ballcourts is their late construction date and the fact that they are likely coeval. Zaro and Houk (2012) have documented the long persistence occupation of La Milpa particularly in Plazas B and C, and Courtyard D. These two facts raise some interesting questions about La Milpa's political position within the region, its development and ultimate abandonment. The ball game in Mesoamerica served various purposes, which included settling political disputes, a reenactment of competition between patron deities or power factions internal and external, ritual prior to the sacrifice of war captives and renewal agricultural ceremonies. Few important sites are without at least one ballcourt (Leyenaar and Parsons 1988; Weeks 1983). Las Casas (1909: 400) proposed the association of ball courts with noble descent groups and the *why* deities were placed upon the summits of the ranges. They are also associated with market places and locations near important plazas (Weeks 1983). The supernatural nature of ball courts is found in the Popol Vuh (see Christenson 2007) as mythical arenas in the creation story of the Quiche Maya, the place where the Hero Twins fought the evil Lords of the Underworld.

La Milpa was likely the political capital of the territory. Houston (1993) supports the city-state model based on glyphs that indicate a polity had several sites within it, e.g., the sites of Dos Pilas and Aguateca share the same emblem glyph but employ different toponyms. In the Maya region it is suggested that on average the mean distance between capitals is approximately 32 km. This would indicate that La Milpa was the largest site and the political capital for the region and required a space in which local and foreign (the most high ranked) elites could assemble. It is proposed that elites maintained and negotiated their legitimacy with competing elites. Ritual banquet activities have also played an integral role in ballcourts and the ball game (Fox 1996; Moriarty and Foias 2007).

Competition between elites is believed to have caused Late Classic socio-political stress associated with "collapse" (Willey 1974:422). Perhaps the ballcourts served as the arena in which La Milpa elites expressed and professed control over the cosmos to competing elites in order to maintain their rule in the region (Buren and Richards 2000). These ballcourts indicate that La Milpa was perhaps vying for power in the region, performing rituals that created a cohesive force for the polity significantly late in its history. Although Hammond and Tourtellot (2004) and Hammond *et al.* (1998) recognize the hasty nature of La Milpa's abandonment and the incomplete nature of the various structures and possibly the North Ball Court (see Zaro and Houk 2012:148), the late construction of the ball courts attests the resolute and resilient nature of all of the occupants of La Milpa.

Southern Plazas and Courtyards

The initial investigations of the Southern Plazas led by the RBAP under the direction of Dr. Guderjan (1991a) and the LaMAP led by Drs. Hammond and Tourtellot were mostly dedicated to mapping, exploring the looter's trenches and some limited test excavations. Starting in 2007 and through 2011 the La Milpa Core Project (LMCP) led by Dr. Brett Houk of Texas Tech University conducted extensive excavations in the area. The LMCP project had several goals, among them: to explore the chronology of construction phases of the various buildings in the plazas; to determine their occupation history and function; and to explore the ritual deposits and monuments.
The most important goal was to investigate ancient principles of site planning and the ideational, cosmological, social, environmental, economic, engineering, and historical factors that governed architectural form and arrangement across the landscape (Houk 2007).

Consequently, an additional agenda for the LMCP was to test if Plaza B lacked a plastered surface and if Str. 21 was abandoned prior to completion. The investigation of this research problem speaks to the critical issues related to the abandonment of La Milpa, the collapse of Classic Maya society in northwestern Belize and how the elites and inhabitants of La Milpa adapted to the transformations and shifts encompassing this collapse (Houk 2010).

Plazas B and C were known to be of Late/Terminal Classic date and incomplete architectural programs (Hammond and Tourtellot 2004:292). The two plazas include several courtyards that are attached to the Acropolis. This configuration forms a

contiguous and complex architectural program that grew exponentially during the Late Classic period. Plaza B is the second largest plaza at La Milpa measuring 8,170 m^2 and includes Structure 21 (Houk 2008). Tourtellot *et al.* (2003: 47) proposed that these plazas and the attached courtyards served as the residence of a second rival faction, perhaps with equal social and political standing to the pioneering ruling class. Recently, it has been proposed that Plaza B may have served as the locus for the La Milpa marketplace based on contextual evidence, i.e., the architecture and spatial location of the plaza (see Dahlin *et al.* 2010).

Plaza B

Structures 22 and 23 are attached and measure 55 m in length. These two structures are fused forming an L configuration, a standard form of the Late Classic period. The large structure (Str. 24) on the north end of the plaza measures 77 m in length (Houk 2008). Structure 22 was a stepped platform with approximately seven steps (Barrera 2008; Houk 2008). The last construction phase of Str. 22 consisted of a superstructure with two doorways facing the plaza each leading to separate interior rooms (north and south rooms) connected by an interior passageway (Zaro 2009). Based on the length of the building and the distance between each doorway, Zaro estimates at least five to seven rooms facing on to Plaza B. This was a corbelled masonry structure with a red painted bench, 50 cm in height, in one of the rooms (Zaro 2009). The project ceramicist Dr. L. Sullivan dated the ceramics from the last and sub construction phases to the Late/Terminal Classic, Tepeu 2-3 (Barrera 2008; Houk *et al.* 2009; Zaro 2009).

A significant cache, Cache B-2, was encountered within the fill 40 cm below the plaza surface beneath the axial staircase of Str. 22-Sub 2. The cache contained two sets of jar/lid ceramic vessels, an obsidian biface and blades, one eccentric, marine shell and coral; some of the shells were modified into beads accompanied by jade beads (Barrera 2008; Houk *et al*. 2009). A 2σ calibrated range of A.D. 690 to 900 and the ceramic analysis conducted by Dr. Sullivan place the cache within the Late/Terminal Classic period. Of significant importance are the two cache vessels, particularly the lid with the incised woven mat pattern. Houk *et al.* (2009:50) stylistically links the vessels from this cache (Cache B-2) with the vessels recovered in Cache B-1 beneath Altar B-1 and proposes, "the construction and elaboration of Plaza B and its architectural components were part of a larger ritual plan that extended beyond the dedication of a single structure." See Houk *et al.* (2009) for further data pertaining to the excavation, a detailed list of items, their conservation and restoration and interpretations of the cache.

Structure 23, a Late Classic construction, consisted of a five-stepped platform with as many as three separate buildings on its summit (Padilla 2008; Padilla and Smith 2009). The central building was tandem in form however it is not know if it is tandem transverse or if the two contiguous buildings share the same form. Most of the excavations took place in the central building. Ceramic and lithic material (Padilla and Smith 2009) found on the surface of the superstructure suggests that it was used as a living surface late in time— perhaps a perishable construction was built on its summit.

An outset staircase on the southern façade of Structure 24 consists of at least five steps measuring 20 m in length, and was the last construction program of this tandem

range structure (Houk *et al.* 2009). On the summit of the structure a corbelled-vaulted tandem range building with a central landing (1.4 m wide) separating the northern and southern rooms was exposed (Zaro 2010). Built in bench features were located in the rooms of these buildings. In the northern room the bench covers most of the floor space and measures 50 cm in height and is approximately 2 m wide (Zaro 2010). Two main entrances, one central and one to the west of the central doorway, were revealed. This structure dates to the Late/Terminal Classic period, based on the presence of Tepeu 2-3 ceramics. However a carbonized wood sample recovered from the bench in the north room provided a calibrated age range of 2σ A.D. 435-635 (Zaro 2010).

Structure 21, the fifth largest structure at La Milpa, measures 52 m long by 30 m in width and 18 m in height and the summit is quite substantial measuring 28 x 9 m (Houk 2008). The building was part of the major construction program of the Late/Terminal Classic that was never completed—it lacks a staircase and superstructure platform (Hammond *et al.* 1998). This was partially confirmed by Houk (2010) however, excavations carried out by the LMCP confirmed an earlier construction within Str. 21 and that the summit of the final construction phase was paved over (Houk 2008; Trein 2008). The paved substructure surface, approximately 90 cm below the present ground surface, appears to have a concentration of ceramics and burned clay on it, indicating a termination deposit.

During the 2009 field season the LMCP exposed a platform and a terraced substructure (Str. 21 Sub) that at one time had a superstructure on top that was demolished in antiquity and a staircase (15 steps) on the western façade of the building

(Houk and 2010). The steps appear to have been expanded at some point. Houk (2010) dates the substructure to the Late/Terminal Classic based on the poor quality of the steps encountered on the western façade. Current excavations of architectural phases, style and quality, along with material remains indicate that architectural program in Plaza B was complete, but undergoing modifications and additions at the time of abandonment. An abandoned quarry north of Plaza B with large limestone blocks and a pile of construction material suggests the both Plaza A and B were in a state of refurbishment (Hammond *et al.* 2000).

Courtyards

Courtyard D consists of Str. 20 to the north, Str. 27 to the west and Str. 26 to the south all joined enclosing the courtyard. Str. 25 is adjoined to Str. 21, creates most of the eastern boundary and is presumed to have served as the eastern shrine for the courtyard (Houk 2008). Initial excavations revealed at least three construction phases for Structure 27, the last appears pretty crude in quality, while a more substantial plaster floor (25 cm thick) and stairway lies beneath (Padilla 2008). Excavators propose that in its final phase (Late/Terminal Classic) the superstructure consisted of a tandem range building, with a vaulted roof (Zaro 2010).

The Late Preclassic style stepped platform lying beneath Str. 27 consists of five rounded stucco steps measuring between 32 cm to 49 cm in height and 57 cm to 65 cm deep (Padilla and Smith 2009:79; Houk and Smith 2010). The final modification to this Late Preclassic building was the truncation of the very top tier that was capped by a

Terminal Classic floor (Houk and Smith 2010). A radiocarbon date (cal. A.D. 890-1030) places this episode in the Terminal Classic period and indicates that activities and the construction program for Courtyard D, particularly Str. 27, occurred very late in time—at least more than a century after the last written date on Stela 7. The presence of this sub-structure suggests an ongoing occupation from the Late Preclassic and into the Late/Terminal Classic periods in the southern sector of La Milpa.

Structure 26, a corbel-vaulted tandem range with three entrances and up to 10 rooms, forms the southern margin of Courtyard D and adjoins Strs. 27 and 28 (Zaro *et al.* 2011). Excavations revealed a staircase that extends the entire length of the building (Zaro *et al.* 2011). Large pieces of modeled stucco, painted red with elaborate designs, were recovered from the northeast base of the building suggesting a highly decorated northern façade for Str. 26 (Zaro *et al.* 2011).

The smallest courtyard, Kotanil Courtyard, consists of a series of buildings (23, 27, 28 and 29) and is situated between the two main plazas and Courtyard D. There is no apparent entrance into this space, however Hammond and Tourtellot (2004: 47) propose an entrance existed "through a portal vault in one of the surrounding range structures." Excavation of Str. 23 encompassed a 9 x 1 m unit on the southern axial façade from the base of the structure in Kotanil Courtyard to its summit. The structure's southern façade consisted of a plastered platform measuring 1.6 m high and 2.6 m. deep. Two three-course plastered steps followed the platform to the summit of the building. Padilla and Smith (2009:76) believe that the final step led to the entrance of the superstructure. Structure 23 was completed prior to the abandonment of La Milpa, however uncompleted

expansion of the building was evidenced on the summit and southern façade of the building (Padilla and Smith 2009:76).

Courtyard 100 marks the northeastern boundary of Plaza B and consists of a series of structures and features positioned on a raised platform: 102 and 103 are small buildings; 104 is a low wall to the east; and a structureless platform, Str. 105, formed the southern extent of the group (Mann 2010). Structure 103 had evidence of a curtain or cord holder near the structure's entrance, a high volume of ceramics and lithic bifaces and a possible bench (Houk 2010; Man 2010). Str. 104, the low bearing wall with adjoined perpendicular walls used to partition rooms/activity spaces, also produced valuable data about the possible activities conducted in Courtyard 100.

A "problematic deposit" that resulted from a long and complex process of accumulation, including periodic visitation after the sites abandonment (Moats *et al.* 2012), was located on the eastern side Str. 104. This deposit produced significant amounts of ceramics (Tepeu 2-3, Buyuk Striated) including a whistle and possible drum fragments, mammiform vessel feet, manos and animal bone (peccary). Mann (2010) has proposed that this courtyard may have housed either craft specialists and/or occupational specialists (such as musicians) perhaps during the Terminal Classic period.

The peccary bone produced Late/Terminal Classic 2σ calibrated age ranges of A.D. 900-920, A.D. 950-1040, and A.D. 890-1020. A Pabellon Modeled-carved sherd, an important Terminal Classic marker, was recovered within a probable termination deposit (Zaro and Houk 2012). A male with an elaborate feathered headdress and wearing an ear spool and a necklace was depicted on this sherd (Moats and Nanney

2011). The radiocarbon dates and Fine Orange Wear sherd are suggestive of a Terminal Classic occupation for Courtyard 100. Zaro and Houk (2012:152) believe that activities, including building modification, continued in particular sectors within the site core into the tenth century—as many as nine generations more than previous estimates.

The LMCP produced new interpretations regarding the Late Preclassic occupation and settlement of La Milpa. La Milpa exhibits a pronounced Late Preclassic settlement pattern that reflects the political clout of the leaders and their manipulation of a much larger labor force than previously thought. It is probable that the social and political complexity of La Milpa is comparable to sites such as Cerros, Cuello, Rio Azul and Uaxactun during this time. Clearly the Late Preclassic architectural program provided a foundation for which the expansive and incremental monumental program of the Late/Terminal Classic period. For example, Zaro and Houk (2012) propose an ambitious, but perhaps not as explosive architectural program in the Late/Terminal Classic period. Such interpretations may now question the view that a new political arm migrated in with a mass population that carried out the monumental building program of the Late/Terminal Classic that has been proposed by the LaMAP.

Additionally, excavations produced new data concerning the political history and abandonment processes for the Terminal Classic period, specifically, the framework concerning settlement patterns in the Three Rivers Region and the temporal revision for a temporal expansion of Tepeu 3 ceramics in the Three Rivers Region (see Zaro and Houk 2012).

In their more recent work, Zaro and Houk (2012) address the timing of the abandonment process at La Milpa. For example, they argue that like many urban centers La Milpa was under a constant growing flux during the Late/Terminal Classic period, and that it was a slow not a rapid abandonment process as was once proposed. Occupations at La Milpa may have extended nine generations than previously believed. Tenth century radiocarbon dates, finished construction projects, and the continued occupation of Courtyard 100 suggest a 10th century component at La Milpa. The royal family declined in significance but managed to persist into the Terminal Classic period (Zaro and Houk 2012: 157).

Tzaman Acropolis

A series of contiguous complex courtyards consisting of multiple building forms constitutes the South Acropolis at the southern most end of the civic core of La Milpa (Figure 1.1). The South Acropolis and adjacent courtyards are believed to have overlooked an extensive flat cropland that may have been a primary source of wealth for the elites residing in this region of the site (Everson 2003: 113). These complexes are believed to have served as a main royal palace, i.e., the seat of government and administration (Hammond 1998; Hammond *et al.* 1998). The multiple throne rooms and their reconstruction are indicative of what Hammond called "seats of power." Based on the simple layout and smaller construction development Hammond *et al.* (1998) believes that a southward accretionary development occurred at the courtyard. Courtyard Pl 115 is the oldest and most complex while Str. 44 appears to be the last construction phase for the acropolis (Hammond *et al.* 1998). The Acropolis and the adjacent courtyards all

appear to be Late/Terminal Classic in occupation and construction, with very little evidence of antecedent activity (Hammond *et al.* 1998).

It appears that the 'seat of power' was located in the middle of the acropolis between Strs. 38 and 39. A throne room in Str. 39 appears to have been reoriented from north facing to south facing late in time as new spaces became enclosed (Hammond *et al.* 1998). Three painted and highly decorated thrones were located in the infilled Str. 38. They were constructed consecutively facing north, but only the second and third had false throne legs outlined in blue-green pigment (Hammond *et al.* 1998). There was evidence of burning, perhaps a termination ritual, at the base and surface of the throne as well as on the outside of the building (Hammond *et al.* 1998). The burning ritual outside the building produced a 2σ calibrated radiocarbon date between A.D. 770 to 880 and probably peaks between A.D. 780 and 790 (Hammond *et al.* 2000).

Additional throne rooms have been located in adjacent courtyard groups to the east and west of the acropolis and will be discussed below. Hammond *et al.* (2000) posit the construction of three thrones may correspond to evolution or growth in the southern sector of La Milpa and the possibility of each bench representing three consecutive rulers of La Milpa and that a new king was responsible for the construction of the final throne room in Str. 39 and the ambitious construction to the south that was never completed.

Excavations revealed at least three Late/Terminal Classic construction phases. However, like in other sectors of La Milpa, buildings south of Str. 123 were left incomplete. For example, Platforms 131 and 130 did not possess retaining walls and other features (Pl. 129, 127, 128 and Strs. 44 and 132-134) in the southern sector

appeared to be in initial stages of construction (Hammond *et al.* 1998). Nevertheless, the reorientation of the throne room in Str. 39 indicates that a new construction in the southernmost sector of the acropolis was in the midst of creating a grandiose space for one of the royals of La Milpa.

Adjacent Courtyards

A private elite residence (Pl. 151) east of the acropolis also exhibits a formal throne-room construction (Hammond *et al.* 1998). Building 65, a tandem/transverse structure, had floors painted in deep red specular hematite and stucco walls painted in a lighter red with a darker red framing the main entranceways and along the base (Hammond *et al.* 1998). The courtyard group appears to only have one construction phase, but the area may have been occupied for an extended period of time evidenced by the considerable amount of ceramics, including polychromes (Hammond *et al.* 1998). The central room of Building 65 delivered the most spectacular find, a 4 m long, 1.3 m wide and 60 cm high polychrome bench (Hammond *et al.* 1998; Hammond and Thomas 1999). Emulating the bench found in Str. 38, this bench had two front relief false legs of molded stucco painted blue, light red, and deep red specular hematite to create the impression of a freestanding throne (Hammond and Thomas 1999). Hammond and Thomas (1999) assert that stylistically this throne closely resembles the last throne found in Str. 38 in the main acropolis.

In similar fashion to the ritual termination seen in Str. 38, the central room in Building 65 was purposely infilled, while the western room appears to have simply

collapsed after abandonment (Hammond *et al.* 1998). Curiously, artifacts typically associated with pigment processing and floor preparation and polishing were found *in situ* in the collapsed building (Hammond *et al.* 1998). It appears that complex power shifts occurred decades before La Milpa was finally abandoned, evidenced by the deliberate destruction and burial of Str. 65 and Str. 69 (Hammond and Thomas 1999).

Group 69 presents one of the most complex construction histories in the southern region and is considered the Western Palace (Hammond and Tourtellot 2003a). It consisted of a sunken patio, an enclosed patio to the south and a northeast Petén style substructure beneath Str. 69 (Hammond *et al.* 1996). Structure 69 exhibited three construction phases with the final building layout consisting of a two-roomed temple with red painted floors and walls (Hammond *et al.* 1996). Three entrances on the eastern façade lead into an outer room and the remaining two lead into a western chamber (Hammond *et al.* 1996). This palace group dates to the Late-to-Terminal Classic period (Post A.D. 750).

Two significant finds were located within this palace group (Courtyard Group 69): a stone tenon head of K'inich Ajaw and burials. The stone sculpture was recovered from the construction fill of Structure 74 on the eastern margin of the courtyard and corresponds to construction Phases II and III (Late/Terminal Classic). A number of burials were located in the interior of a vaulted roof structure (Str. 70) that consisted of several rooms and benches located in the southern courtyard (Hammond and Thomas 1999). This structure, like many structures in this region, was purposely infilled and renovations were incomplete (Hammond *et al.* 1996). The structure was not fully

understood, but Hammond *et al.* (2000) believe one of the most important features may have been an eastern facing throne.

It has been proposed that two throne rooms outside the acropolis may represent two arenas or seats of power for the rulers of La Milpa, ancestral in Str. 38, while Str. 65 represented the formal royal residence or the Eastern Palace (Hammond *et al.* 2000; Hammond and Tourtellot 2003a). Conversely, the growing elite class during this period may have dictated the sharing of power between the ruler and other elite members or new positions within the royal court that required accouterments of a leadership (Hammond and Thomas 1999; Hammond *et al.* 2000). A third interpretation for the thrones corresponds with the rulership *multepal*, or shared rulership, similar to what is proposed for Yucatan during the Postclassic and Copan during the Late Classic. As such, this governing system produced separate seats of authority—in this case Strs. 65 and 38 represent one lineage while Strs. 69 and 39 represent the second lineage (Hammond *et al.* 2000). However, this is an old and outdated interpretation that has been replaced by new explanations (Brett Houk, personal communication 2013).

Settlement Patterns at La Milpa

Reconstruction of the settlement patterns at La Milpa was one of the most significant components for understanding the social and political growth, development and boundaries of the La Milpa realm as well as its satellite communities. Formal and recognizable boundaries are visible manifestations imposed by political entities, for example for tribute collections or polity territorial markers, and can shift due to or are

affected by internal and external circumstance (Smith 2003:4). Thus settlement pattern studies are of utmost importance when investigating the cities and urban space of Maya lowland polities. The research design proposed by Hammond and Tourtellot (1993) had three main objectives: first, to understand the social organization of the site core and its peripheries, secondly, to correlate this data to the political and economic development at the site. The third objective was to investigate the environment in conjunction with the various food production systems (e.g., land and water management), and silviculture practices of the ancient Maya. To access GIS data and maps please visit the La Milpa/Boston University Archaeological Project website at http://www.bu.edu/lamilpa/

Initial investigations were conducted within a 1 x 1 km cruciform generating four cells each measuring 500 m. This undertaking established that the community territory of La Milpa was comprised of 78 km^2 (Tourtellot *et al.* 2003). More than 3200 structures and features have been mapped since 1992, most of which date to the Late/Terminal Classic period (Tourtellot *et al.* 2003). Surface collections indicated the presence of significant amounts of Tecep ceramics (A. D. 800-1000) (Hammond and Tourtellot 1993: 75).

Most of the 1994 season was dedicated to mapping and surveying during which two transects between 200 to 500 m wide and extending 6 km east and north from the site center were initiated. An additional component consisted of 15 survey blocks, each measuring 250 x 250 m beyond the central square kilometer of La Milpa (Tourtellot *et al.* 1994). Most of the material observed dates the Late/Terminal Classic period suggesting most of the settlement activity occurred during this period (Tourtellot *et al.* 1994). The

north and east transit surveys located a larger number of utilitarian berms and terraces compared to residential structures (Hammond *et al.* 1998). Although excavations were not conducted, Hammond *et al.* (1998) argue that these constructions date to the Late/Terminal Classic period. During the 1996 field season a small exploration of the stone berms determined their artificial nature and construction. They appear to have been enlarged during the Late or Terminal Classic periods, however smaller stone berms may predate the larger terrace berms, and may have been constructed during the Late Preclassic period (Hammond *et al.* 2000).

The 1994 LaMAP transect surveys projected the territory of La Milpa to be approximately within a 6 km radius from the site core. The survey data indicate a high frequency of structures (average N=149/km^2) 3.6 km from the center with a significant drop (average N=45/km^2) beyond 5 km from the center (Tourtellot III *et al.* 1996). Based on the number of dwellings the population density was approximately 794 persons/km^2 within 5 km of the site center and only 182 persons/km^2 5 km beyond the site center during Late/Terminal Classic times (Hammond *et al.* 1996). Using these estimates Hammond asserts that the population during the Late Classic II period (A.D. 650-700/780) may have been as high as 50,400 and probably under the reign of the king depicted on Stelae 11 and 12 (Grube 1994; Hammond *et al.* 1996:86; Hammond *et al.* 2000:39).

Everson's (2003) population calculations for the Late/Terminal Classic, 783 persons/km^2, are slightly lower than Robichaux's (1995) estimate of 907 persons/km2 (62, 166 persons), as well as the population estimates proposed by Rose (2000), 797

persons/km^2 (65, 304 persons). Everson (2003) proposes that settlement density remains constant and predicts that the population of La Milpa during the Late/Terminal Classic period was as high as 61,536 persons (Everson 2003:104). Everson (2003:104) observed a higher population density on elevated ground and a decrease in density in surveyed segments 2.2 km to the east of the site center. All structures had some elements of masonry construction and paved floors as well as evidence of vaulted buildings (Everson 2003). Most of the material culture from these units is attributed to the Late/Terminal Classic period, however small amounts of Late Preclassic and Early Classic material was encountered (Tourtellot *et al.* 1994). House groups investigated in the East Transect approximately 2.3 km from the site center also indicate exurbanite growth during the Late/Terminal Classic period (Hammond *et al.* 1996).

According to Tourtellot *et al.* (1994) La Milpa was a modest sized community that flourished into an important urban center during the Late/Terminal Classic period, with small-nucleated populations within and around the site center during Late Preclassic times and major settlement dispersion outside the site's center during later times. For example, Hammond *et al.* (1995: 8) makes following statement: "We now suspect that early things are not out there to be found because early people lived in nucleated communities." This argument is supported by Everson's and Rose's (2003; 2000) excavations, i.e., that most Preclassic people within the area lived in nucleated communities and La Milpa was one of the largest extending up to 2.5 k east (Sagebiel 2005). Sagebiel's (2005:717) ceramic data suggests that approximately half the Preclassic population, within a 6 km radius, lived within the La Milpa Center. They

attribute this to possible disruptions and unstable political fields in the lowlands during this time requiring people to aggregate for protection, while the relative calm of the Late/Terminal Classic period allowed people to expand into the outskirts of the city without any sort of threat.

The Ritual landscape of La Milpa and Middle Managerial Sites

During the extensive mapping and settlement survey project led by Dr. Gair Tourtellot three transects oriented in cardinal directions from the site center (north, south and east) accompanied by survey blocks yielded the discovery of four minor centers. These centers are all located approximately 3.5 km from the site center, on the most prominent hills on the landscape, and possess intervisible view sheds with the summit of Structure 1 (Hammond *et al.* 2000; Tourtellot *et al.* 2002; Tourtellot *et al.* 2003). Three of the centers, La Milpa West (LMW), La Milpa East (LME) and La Milpa South (LMS) share the Plaza Plan 2 (PP2) pattern identified by Becker (1971) at Tikal. The eastern buildings of LMW, LME an LMS all had a viewshed directly linked with Str. 1, perhaps the most important funerary temple at La Milpa (Estrada-Belli 1999).

A predictive site-planning/cosmological model was developed based the orientation and position of the East and South satellite centers, and in 2000 LMN and LMW were discovered using this predictive model (Tourtellot *et al.* 2002). It was proposed that the loci of these centers represented a cruciform pattern that was imposed by the La Milpa ruler, as part of the quincuncial Maya cosmogram, creating a quadripartite partitioning with La Milpa in the center (Everson 2003: 130; Tourtellot *et*

al. 2000; Tourtellot *et al.* 2002). The quadripartite division is an important concept for the division of the world and time in Maya cosmology (Coggins 1980; Schele and Freidel 1990). For the Maya, the world is divided into four corresponding cardinal directions, each with its own gods, color, tree and bird—the cosmological middle world of the Maya (Everson 2003:129; Schele and Freidel 1990). This "artifact" according to Tourtellot *et al.* (2003:10) is seven km across and four miles in diameter, "one of the largest designed objects in the Maya world (exceeded only by several intercity causeways)."

This purported cosmogram resonates with the historical *pepet tsibil* (native maps) of the Lowland Maya, with the capital city of La Milpa in the center and communities (LMN, LMW, LME and LMS) spatially organized in cardinal directions an equal distance (roughly 3.5 km) from the site center (Everson 2003; Tourtellot *et al.* 2003). Nevertheless, such cosmology models, particularly Ashmore's and Sabloff's (2002) research have been disputed and critiqued by Smith (2003, 2005). Although the viewshed from Structure 1 is the proposed center of the cosmogram, viewshed analysis forms a cruciform pattern that corresponds more with Structure 10 in the site center. Perhaps Structure 10 commemorated the center of the "geo-cosmic quincunx" (Estrada-Belli and Tourtellot 2000). Ground-proofing of a total of 61 targeted hills reinforced the cosmogram model and provides a glimpse of the emic perspective or of ancient Maya consciousness in site planning and organization at La Milpa as proposed by Tourtellot *et al.* (2003).

The minor center of La Milpa East was discovered in the 90s approximately 3.5 km east of Plaza A on the East Transect (Hammond *et al.* 1998). Excavations by Estella

Weiss-Krejci (2008) revealed possible Early Classic occupation as well as water management features (perhaps water cisterns) located east of Structures 2040 and 2041. Stela 19 and an altar with evidence of Terminal Classic veneration were located at the northeast corner of the eastern temple shrine Str. 2040 (Hammond *et al.* 1998; Hammond *et al.* 2000). These two monuments testify to the ritual importance and regal connections of this minor center with La Milpa.

Architectural form and plan layout (single row rooms) contradicts domestic activities at the center and according to Tourtellot *et al.* (2002; 2003) the large plaza, the third largest at La Milpa surpassing Plaza C in the site core, could easily have held up to 5000 people. These discriminating features are suggestive of a ritual and public function for this space, conceivably "presentation or feasting halls" as has been proposed by Tourtellot *et al.* (2003). This coupled with its astronomical position and viewshed has prompted scholars to believe that LME served as an "eastern horizon marker or sunrise shrine, the seat of a lord of the eastern sector of the city" (Tourtellot *et al.* 2003:101). Estrada-Belli and Tourtellot (2000) have ascertained the alignment of LME and Temple 1 with the sunrise during the winter solstice and propose it functioned as a place for solstitial ceremonies as well as equinoctial observances. Recently, however, Tourtellot *et al.* (2003) report that the alignments of the groups overshot the solstices and other celestial alignments should be considered.

The South Transit survey located a site on a small hill roughly equidistant (3.2 km) from the site center, but with less impressive architecture compared to La Milpa East. It is thought to have functioned as a middle level managerial center (Hammond *et*

al. 1998). In accordance with LME, LMS exhibits a PP2 layout with the shrine on the east side, a significantly large plaza space, a possible stela and widely spaced structures, indicating some sort of public space used for ritual performance (Tourtellot *et al.* 2003).

The viewshed analysis conducted by Francisco Estrada-Belli also supports the hypothesis that LMS was visible from the summit of Temple 1 (Estrada-Belli 1999; Tourtellot *et al.* 2003). The presence of Late Preclassic ceramics at LMS and Early Classic ceramics at LME suggests antecedent occupation prior to the creation of the "ritual engineered landscape" (a term borrowed from Houk and Zaro 2011) of the Late/Terminal Classic period.

La Milpa North resembles a residential palace rather than a ritual center and was considered to represent a heavenly abode (Tourtellot *et al.* 2002; Tourtellot *et al.* 2003). The center is composed of three small courtyards with long multi-room buildings. On the Maya vertical cosmogram, north is considered to be the Underworld; therefore, La Milpa North may have served as the referential Underworld for La Milpa (Tourtellot *et al.* 2003). More recently (2010), graduate student Eric Heller (University of California, Riverside) commenced investigations at the site. His research questions echo many of the problems encountered by the LaMAP research team— most imperative is the acquisition of multiple lines of evidence to establish the function of LMN and LMNC, particularly whether or not it fits into the cosmological model proposed by Tourtellot *et al.* (2002; 2003; Everson 2003). Heller (2011:111) states his goals as follows: "A diachronic, multivocal and multilocal biography of place at LMN with special attention

paid to issues of political and economic organization of space, shared and contested landscapes and emic concepts of community identity."

In 2010 Heller mapped three structures that were not present on the Tourtellot *et al.* (2002) map and discovered a possible stela (2011). Limited test excavations revealed single Late Classic construction episodes for four of the structures at the LMN, however LMNC has a Late Preclassic date. An artifact assemblage consisting of hematite, raw red and yellow ochre, marine shell and obsidian blades, typically associated with some sort of craft specialization (dye production) and elite ceremony, was recovered from Str. 1a (Heller 2011). A significant amount of lithic waste production material consisting of large tested cores, unfinished or broken bifacially flaked stones, a variety of debitage and microliths was part of the construction fill (Heller 2011). Consequently, Heller (2011) agrees with the elite residential function proposed by Hammond and Tourtellot (2003) and Tourtellot *et al.* (2003).

La Milpa West, occupied during Late Preclassic times, possesses an architectural layout PP2, however the pyramid at LMW faces east toward the La Milpa center and is surrounded by long buildings and several ancillary features (Tourtellot *et al.* 2003). This pyramid possesses an alignment with the setting sun on the day of summer solstice (Estrada-Belli and Tourtellot 2000). The east-west path created by LME and LMW carries great cosmological credence. According to Freidel *et al.* (1993; Schele and Freidel 1990) the principal axis for the Maya is east-west. The center's last construction episode mirrors the last construction efforts at La Milpa and has unfinished structures (Tourtellot *et al.* 2002).

While various functions for these centers have been proposed, the most compelling use and function of these centers appears to be ritual, perhaps imposed by the ruler(s) of the La Milpa center (Everson 2003; Tourtellot *et al.* 2003). Although La Milpa West and South date to the Late Preclassic period, it is believed that they were absorbed and incorporated as part of the Late/Terminal Classic cosmogram (Everson (2003; Tourtellot *et al.* 2003). It may be that La Milpa's rulers created this physical and ideational landscape to symbolically and politically bind peripheral groups to the site center, the *axis mundi*. This interpretation is based on viewshed analysis, their location on the landscape, architectural configuration, size and the presence or absence of monuments (Hammond *et al.* 2000; Tourtellot *et al*. 2002; Tourtellot *et al.* 2003). Robichaux has speculated that minor centers, more specifically Thompson's Group and Say Ka, "are the specific loci of oversight and management activities for intensive agriculture production efforts in the *bajo* zones" (Robichaux 1995: 22). More investigations, including intense excavations are needed not only within the four proposed secondary centers, but also of the surrounding groups to make clear interpretations about their organization and function. Perhaps Heller's forthcoming work will shed further light on the functions of these minor centers, particularly La Milpa North.

Monuments

Stelae are dedicated to Classic Maya kings on important occasions and are typically adorned with elaborate iconographic elements of kings and queens in their most

important roles (e.g., warriors, priest, and deities). Hieroglyphic texts were used to document dynastic history, e.g., accessions and coronations and military defeats, accompanied with a date in the Maya Long Count. Often the hieroglyphic texts on such monuments revealed the close connections between kings and their ancestors (Marcus 1992; Schele 1992). The Rulers of La Milpa actively commissioned the production of monuments from the Early to Late-to-Terminal Classic periods (A.D. 300 to 900). By the end of the Late-to-Terminal Classic a total of 22 carved and plain stelae and altars were dedicated. Hammond (1997) notes that the lack of dedicated stelae from the late fifth through mid-seventh centuries marks a decline of La Milpa and its rulers.

Nineteen stelae are presently located within the site core area and three more were recorded at outlying sites: one each at La Milpa East, La Milpa North, and La Milpa South. Seventeen are located in Plaza A. In 1938, J.E.S. Thompson located and documented the first 12 stelae aligned in front of Structures 1-5 along the eastern end of Plaza A. Guderjan located and documented two additional stelae during his 1989 survey, while the LaMAP documented an additional six stelae. Heller (2011) documented a possible stela at La Milpa North. More recently the La Milpa Core Project located a stela and an altar bringing the official count of stelae to 22.

Stelae 1, 2, 3, 17, 5 and 6 are all located on the western façade of Temple 1. Stela 20 was discovered in the looter's back dirt and perhaps was originally located within one of the construction phases of Structure 1, and possibly enshrined within the two room vaulted Structure 199 (Hammond 2001). Prior to the enshrinement the face carved on the stela was pecked away. Hammond (2001:267) argues that this mutilation was done to

"release any dangerous power the stela held from having been venerated (although mundane reasons, including internal revolt and invasion, have also been canvassed for such mutilation)." Stela 4 was originally presumed to be under the looter's backfill rubble. Thompson had noted its presence in front of Temple 1 and documented it in 1938. However, in 1996 LaMAP rediscovered Stela 4 (Grube and Hammond 1998). Although it was missing its butt and the top from the shoulder up, Stela 4 may have stood 2.5 to 3 m high. Stela 7 is located in front of Structure 5 and is believed to be contemporaneous with the last construction phase of Structure 5 (Figure 4.3).

Stela 8 is located on the western axial margin of Structure 2, while four stela are associated with Temple 3. Two, Stelae 9 and 10, are located in front of the northern façade of Structure 3, while two monuments, 11 and 12, are aligned with the western axial margin of Structure 93. Grazioso (2008) documented the presence of six large stones in front of Structure 93 that may be considered monuments along with other large stones distributed around and in front of both structures (Strs. 2 and 3). According to Grazioso (2008) these presumed monuments do not display evidence of carving.

The North Ballcourt has two stelae within its vicinity, Stela 16 to the west and Stela 13 to its south. Stela 18 was placed on the eastern axial margin of the stairway of Structure 9. One of the remaining four stelae (21) is located in Plaza B. Outside the North Group are Stela 14 and 15. Stela 14 is located adjacent to Structure 16 while Stela 15 is situated in front of Structure 54. Finally, Stela 19 is located in the minor center of La Milpa East (Tourtellot *et al.* 2002; Hammond 2001).

During the 2007 Season the LMCP located and documented Stela 21 and Altar B-1. The plain altar measures 75 cm in diameter and approximately 30 cm in height and was located in the center of Plaza B between Structures 21 and 22 (Houk 2008). A considerable cache lay below dating to the Late/Terminal Classic period based on two calibrated radiocarbon dates and ceramic analysis (Houk 2008; Houk *et al.* 2009). Upon reconstruction (by Norman Alicia Garcia Huerta) of the two fragmented ceramic jar and lid pairs, it became evident that they were decorated with the woven mat design (*pop*). This symbol has been interpreted to represent Maya kingship. Accordingly Houk (2008) proposes that this cache was placed in the center of the plaza under Altar B-1 to commemorate politically and religiously the last construction phase of Plaza B. In addition to the two vessels, the cache contained 1,000 ceramic sherds, 4, 956 chert debitage pieces, five lithic tools, 16 greenstone beads or fragments, 11 pieces of shell or coral, two fish vertebrae, one burned seed, two small pieces of carbonized wood and one obsidian blade, all *accouterments* symbolic of the Late/Terminal Classic elite subculture (Trein 2008). Stela 21, a small plain stela measuring 120 x 100 cm, was lying flat on the centerline of Structure 21 (Houk 2008). A small excavation around the stela located wooden digging sticks and stones that probably functioned as a fulcrum. These implements, argues Houk (2008), indicate that the stela was moved within the last 10 years and not *in situ*.

The poor limestone quality and high solubility facilitated heavy erosion of the stela. Their fragmentary condition has rendered decipherment of the iconography and text nearly impossible. Grube (1994: 218) dated various stelae on a stylistic basis in

terms of size, shape, proportions, and sculptural traditions. When Nikolai Grube conducted his investigation in 1993 he found that only Stelae 2, 7, 12, 15 and 16 possessed legible texts (1994:218). Since his initial investigation an additional five stelae have been located and will also be discussed in terms of their location, text and iconography. Although heavily eroded, Stelae 1, 3, 4, 5, and 8 show evidence of carving. Stela 7 contains the only date and the best preserved text and iconography that provided an emblem glyph, and possibly the name of the last ruler of La Milpa, *Ukay*. The only date for stela erection at La Milpa was also deciphered, November 28, A.D. 780 (Grube 1994).

Stelae 1, 12, 15 and 16 are considered part of the Early Classic period monument erection activity at La Milpa. Stela 10 dates to the Preclassic/Early Classic transition evidenced by the presence of a cache vessel, a Laguna Verde Incised: Grooved-incised Variety dish dating to the Terminal Preclassic (Hammond and Bobo 1994; Tourtellot *et al.* 1994; Sagebiel 2005). Stela 2 also bears the name of a purported ruler or at least a high ranking member of the elite named "?-K' inich K'uk' mo' "?-Sun face Quetzal Macaw" (Tourtellot *et al.* 1994). The name of the earliest known ruler for La Milpa is written on Stela 15 as "Bird Jaguar" (Hammond *et al.* 1996:90). However, Brett Houk (personal communication 2013) recently informed me that this decipherment is no longer valid. Stele 12 appears to be Late Classic in style and also contains evidence of the La Milpa emblem glyph, however it is not as late as Stelae 7 or 8, which according to Grube (1994:220-221) have Terminal Classic characteristics. Stela 4 was carved on both sides making it difficult to differentiate the back from the front. Both sides of the monument

depict the same richly dressed individual in a frontal position with a belt mask and evidence of an eroded, but once elaborate, headdress. At the foot of the principal figure is a dancing dwarf and a bird (Grube and Hammond 1998). Both the principal figure and the dwarf are dressed in ballplayer attire.

Sagebiel (2005) mentions the "companion" of King U'kay on Stelae 7 as evidence of the possibility of joint rule for La Milpa, however at Copan the ceramic image of the god Chak is mentioned on all three of the monuments of Yax Pasaj's group (10L-2). A modeled ceramic statue, a "gift of Chak," has been interpreted, not as Yas Pasaj Chan Yopat's co-ruler, but as his spirit guide or supernatural companion thus making his patron the god of rain, thunder, and lightening (Andrews and Bill 2005; Schele 1995; David Stuart, personal communication 2009). Perhaps what is written on Stelae 7 is a reference U'Kay's supernatural companion, a phenomenon occurring during Late Classic times. See Grube (1994) and Grube and Hammond (1998) for a more detailed description and decipherment of the glyphs and iconography of the La Milpa monuments.

Site Veneration

According to Hammond and Bobo (1994) the monuments at La Milpa served not merely as important markers related to the institution of kingship and as implements conferring the social memory of the important historical events of the royal court during the Early and Late Classic periods. These monuments also served as the catalysts for a revitalization movement during the Postclassic period, "reaching out and back to invoke ancestral assistance in the face of this new and unfathomable challenge" (Hammond and

Tourtellot 2003: 7). In other words "a deliberate, organized attempt by some members of a society to construct a more satisfying culture by rapid acceptance of a pattern of multiple innovations very commonly resulting from a position of perceived subordination and inferiority with respect to an adjacent society" (Wallace 1956: 279-280). Evidence indicates that this revitalization movement resulted in the resetting of stelae and ritual offerings most likely between the 16th and 17th centuries at La Milpa (Hammond and Bobo 1994). However, Tourtellot *et al*. (1994:123) proposes that the repositioning of fragmentary stelae could have taken place as early as the Terminal Classic and Early Postclassic periods (A.D. 900).

Through careful examination of the plaster floors and excavations of sixteen stelae they determined that only six were in their original locations (7, 8, 10, 11, 12 and 14) and Stelae 7, perhaps 8 have been moved since their initial erection (Hammond and Bobo 1994:24). Evidence supports the idea that the remaining three stelae (5, 13 and 15) may have been abandoned un-erected in their respective loci, but nevertheless moved from elsewhere. The *in situ* Stela 7 had a Late Postclassic veneration cache and/or offering consisting of incensario fragments around its base (Tourtellot 1994:123). Additionally an effigy incensario of terminal Postclassic or Early Historic date, perhaps dating to the 16th century, was located beside the butt of Stela 12 (Tourtellot 1994:123). It is conjectured that informal veneration also occurred very late in time (A.D. 1804-1834) confirmed by the glass bottle located around Stela 12 (Hammond and Bobo 1994). It is proposed that the bottle may have contained rum or *aguaardiente*, ritual

paraphernalia still in use today (Hammond and Bobo 1994; Hammond and Tourtellot 2003b).

Hammond and Bobo (1994) argue that the presence of monument veneration and the act of stela resetting and veneration in the form of offerings were quite important to the history of La Milpa and Maya society during the Spanish intrusion. They propose that this form of pilgrimage and resetting in a known sacred place served to socially and politically unify people in order to abate the threat of disruption and turmoil that occurred when the Spanish conquistadors brought in the *encomienda* institution to the region (Chetumal and Lamanai) during the Postclassic Period.

Chapter 5: Excavations and Methods

The research undertaken at the Los Pisos Courtyard was designed to investigate the use, function and meaning of architectural complexes within urban centers. More specifically, it investigates the temporal dynamics of the Los Pisos Courtyard and its association with Plaza A, as well as the larger urban landscape of La Milpa. This chapter provides a detailed summary of excavations, and will be used to illustrate how the various approaches to architectural analysis presented in Chapter 1 were incorporated into this research design. This chapter contains a short description of the Los Pisos Courtyard (denoted as Group 88 Acropolis by LaMAP), a basic introduction to the excavations and a summary of excavations as well as previous research. The following chapter provides the analysis of the ceramics, chipped stone artifact (including obsidian) analysis, description and analysis of small finds, analysis of non-artifactual data including soil and plaster chemical results, radiocarbon results and mortuary data.

FOCUS OF DISSERTATION RESEARCH

The Los Pisos Courtyard, located within the northern group of La Milpa, is situated on the highest point of the site on a platform five meters above Plaza A (Figure 4.2). The ceramic chronology and radiocarbon dates (Table 6.13 and 6.14) indicate that the Los Pisos Courtyard had an intensive and continuous occupation, which dates from the Late Preclassic to Late and Terminal Classic periods (400 B.C. to A.D. 900) (Lauren Sullivan, personal communication 2009; Sagebiel 2005). However, Sagebiel (2005:706)

noted that several Early Postclassic ceramic sherds similar to those found in Gair's House (Str. 86 Squatter's House) were recovered from Suboperation B64 of the courtyard, demonstrating its use late in time. A carbonized wood sample from the present excavations yielded an uncalibrated radiocarbon age of 440±40 B.P., with 2σ a calibrated age range of A.D. 1400-1450 (Table 6.14), suggests the possibility of later activity in the courtyard perhaps associated with the late episodes of site veneration (see Hammond and Bobo 1994). Nevertheless, it is believed that a leading family of La Milpa conceptualized and used this space as early as the Late Preclassic period and through the Late/Terminal Classic period (Martinez 2008, 2009, 2010; Sagebiel 2005).

In 2008, excavations revealed that the five meter high platform, on which the courtyard rests consists of a natural hillock, the Los Pisos Hillock, approximately 3 m in height, while the upper 2 m consist of an artificially constructed platform that composed of plaster floors, dry construction fill and sascab. Verticality in the built environment appears to be deeply anchored in Maya society. For example, Maya ceramic vessels carry scenes that emphasized how the built environment creates verticality in social relations, with an identified royal figure in a high throne area and courtiers physically located below (Schele and Miller 1986; Miller and Martin 2004). The karst geology in the region creates an undulating topography, therefore the height of the natural platform and the artificial construction used to even out the courtyard may vary throughout the courtyard.

Centuries of occupation contributed to the height of this superimposed construction. Each new construction program partially or completely buried earlier

renderings of the platform and/or structures, often preserving them. This construction tradition is especially associated with public architecture, and provides long sequences of construction events and the imbricated historical events (Jones 1989). The life history of the Los Pisos courtyard tells a 1,100 year saga that embodies transformations in sociopolitical relations, ideology and identity at La Milpa. While hiatus may have occurred within these exceedingly long periods they archaeologically undetectable. Brown and Garber (2008:148) believe that the establishment and continual re-use and occupation of a sacred place were ways for elites to legitimize and maintain their social status and power.

PREVIOUS EXCAVATIONS AT THE LOS PISOS COURTYARD

Although J. E.S. Thompson documented the site of La Milpa in 1938, very little research had taken place within the Los Pisos Courtyard. This palace complex was first documented and mapped by Ford and Fedick and Guderjan's Rio Bravo Archaeological Project (Ford and Fedick 1988; Guderjan 1991a). Limited excavations, a total of three operations, have taken place within the courtyard, all of which were conducted La Milpa Archaeological Project (LaMAP). One unit was assigned to the plaza area associated with Structure 15 (Operation: B64). Sagebiel (2005) encountered evidence of Early Postclassic (A.D. 800-1100) ceramics in this subop. Nevertheless, evidence for Postclassic ceramics was not encountered within this courtyard during the 2007-2009 excavations (Lauren Sullivan, personal communication 2010). LaMAP researchers encountered problems defining the last paving episode. This has also been quite a

problematic issue for this research as well. For example, Sagebiel (2005) notes Late Classic ceramics within tumble and perhaps the upper level of courtyard fill and several Terminal Classic ceramics within the last floor or tumble gravel deposit.

A second unit was designated for excavations outside the main courtyard space (Operation: A03) on the first of the three terraces located on the northwest side of the courtyard. Operation A03 exposed a substantial midden containing ceramics that date mostly to the Terminal Classic and Early Postclassic periods (A.D. 800-1100) (Tourtellot III *et al.* 1993). Sagebiel (2005: 17, 599, 616,) also notes that the deepest levels of A03 (11 and 12) contained ceramics from the Late Preclassic and Early Classic periods (A.D. 250-350, Early Classic Tzakol a tentative subcomplex).

An axial trench placed on the eastern façade of Structure 9 (Operation: B55) indicated that its final form dates to the Terminal Classic periods (Hammond *et al.* 1996). Hammond (*et al.* 1996) also confirmed substantial Late Preclassic construction of the platform on which the Los Pisos Courtyard now sits, with major development of the courtyard occurring during the Late/Terminal Classic period (A.D. 750-900).

CURRENT EXCAVATIONS

The excavations conducted within the Los Pisos Courtyard were fundamental to the interpretations discussed in this work. Excavations were carried out to test the thesis that "palace-type" architecture is multifunctional and that a variety of activities took place within them. More specifically, did the structures in this courtyard serve residential and/or other special functions (i.e., ritual or administrative), and how does the

development in terms of use and function of this courtyard reflect and correspond with the rise of complexity and transformations in the social and political environment of La Milpa through time—the Late Preclassic to Late and Terminal Classic periods (400 B.C. to A.D. 900)?

A total of 16 weeks of excavations was carried out during the 2007, 2008 and 2009 seasons, taking into account weather and logistical interruptions. A total of 32 (A-AG) suboperations was executed. Horizontal excavations were supplemented by a number of vertical excavations. However, horizontal excavations were more feasible, therefore most of the data resulted from the last occupation of the courtyard. Although a considerable amount of information was generated from the small number of vertical excavations.

The first season was structured around the chronology of the courtyard, the various construction phases of the platform and early architectural development in the courtyard area. The second season was a continuation of the first and concentrated major effort on the cultural chronology of the courtyard, as well as, assessing the use and function of the space just outside courtyard area. Excavations examining the monumental architecture continued and were expanded upon. During the 2009 season a major emphasis was placed on Structures 13, 14 and 15. Structure 9 was not excavated as it is just too grand an undertaking, and deserves ample time and a small workforce to do it justice.

Excavations focused on understanding “palace type” architecture and the activities and actions of the occupants. Therefore, suboperations explored the

chronology, form, dimensions, construction phases, additions and modifications, decorative elements and plan layout of the built environment to determine the use, function and development of the courtyard. Information sought from theses excavations included architectural forms, artifacts and soil and plaster samples. The use of extensive comparative data, e.g., architectural, ceramics, and lithics from various sites throughout the Maya region and Mesoamerica was necessary and used to compare excavation results and support interpretations.

DESCRIPTIONS OF EXCAVATIONS

Prior to penetrating excavations, suface clearing of all structures was conducted. Alignments (stairs, doorjambs, rooms) and the preliminary dimensions of structures are more visible after areal clearing. Initial excavations of all structures began at the axial base of structures. Axial trenching is the most advantageous technique when working with large architecture, because many structures have axial staircases that lead to doorjambs and rooms. It can also serve as a centerline from which to identify the symmetry or asymmetry and dimensions of structures. All structures, which were uncovered, were backfilled to ensure further destruction was mitigated as much as possible.

Courtyard—Suboperations A, A-1, B, I, J, M, S and AG

This area (Figure 5.1) was selected for vertical excavations in order to ascertain the chronology of the courtyard and to generate data for making basic assessments for the

development of the platform on which the courtyard sits. Excavations proved to be very productive: a burial and Late Preclassic earthen floor, a Late Preclassic structure, and a Protoclassic burning pit were all found in association with carbonized wood that produced uncalibrated radiocarbon ages, with 2σ calibrated age ranges (see Tables 6.13 and 6.14).

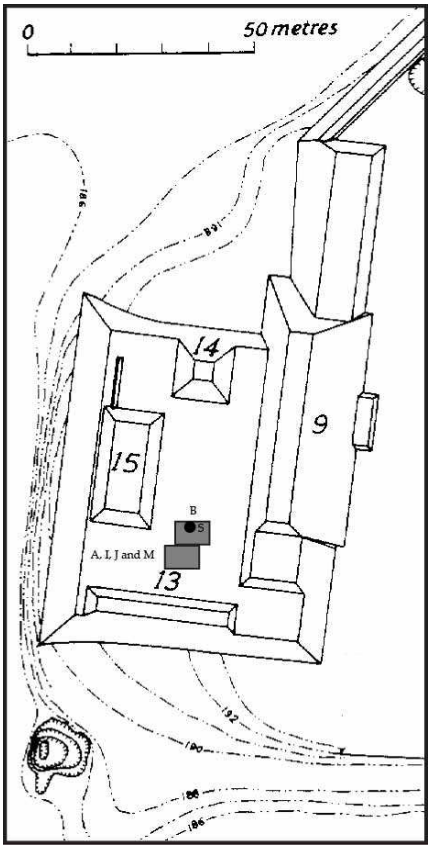

Figure 5.1. Los Pisos Courtyard, Suboperations A, B, I, J and M (From Tourtellot *et al.* 1994).

Suboperation A consisted of a 2 x 1 m unit with a total of 14 lots. High concentrations of lithic and ceramic artifacts were present in the first lot; however as excavations proceeded into Lot 2, the quantity of artifacts began to substantially decrease. A succession of plaster floors, approximately nine, and evidence of floor refurbishment were discovered in this suboperation (Figure 5.2). It appears that the last paving episode was encountered in Lot 2. The floor was very well preserved in the center, but broken along the east and west margins of the unit. The youngest plaster floors were between 5-7 cm thick and broken in some areas. These plaster floors are in close succession to one another and separated by thin layers of a construction fill consisting of a mixture of soil, sascab and small pebbles. The oldest floors are well preserved and much thicker; the thickest is approximately 15 cm in some areas.

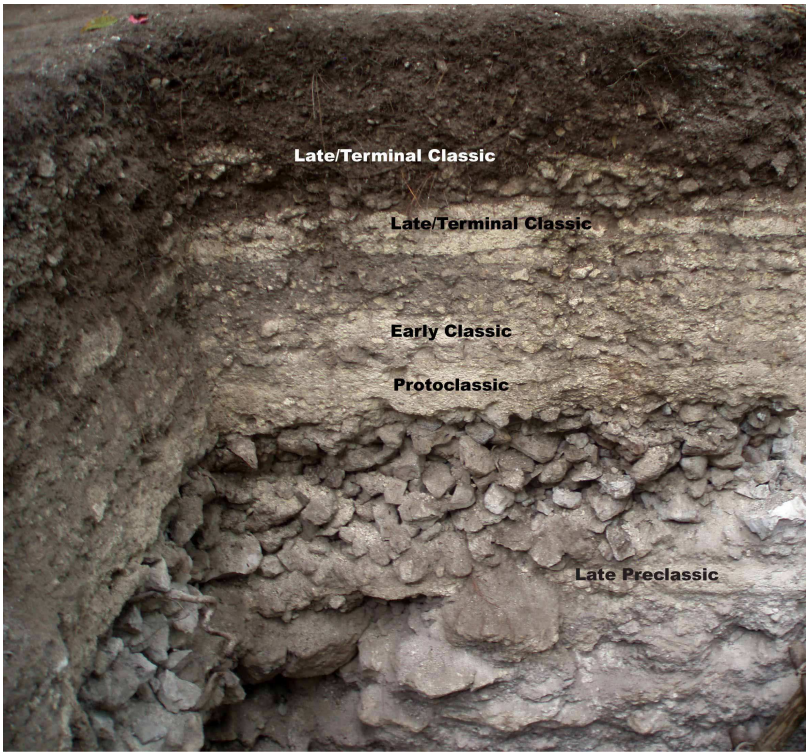

Figure 5.2. Suboperation A, north profile.

Excavations revealed that the two oldest paving episodes (Late Preclassic and Protoclassic) were separated by large episodes of construction fill (Figure 5.2). The most notable was a thick layer of dry, sorted chert cobble construction fill, measuring approximately 40 cm located in Lot 13. These large construction fill episodes in conjunction with ceramic data may represent temporal periods that can be linked to large construction phases, as noted in Figure 5.2. A layer of hard burned sascab was observed in the subsequent lot (14). As the sascab was removed, a masonry feature (Structure 1-1) with an associated posthole, constructed on a well preserved plaster floor was exposed (Figures 5.3 and 5.4). This may have been a pole and thatch building with a masonry

brace. Ceramic data indicates a Late Preclassic (400 B.C to A.D 250) date for these features (Lauren Sullivan, personal communication 2007).

Figure 5.3. Suboperation A, Str. 1-1.

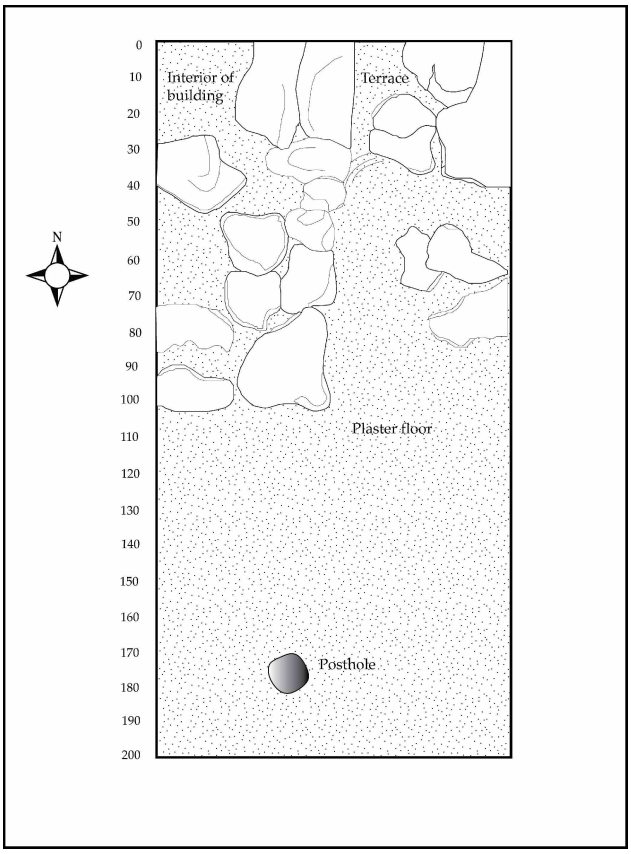

Figure 5.4. Suboperation A, Str. 1-1.

During the 2008 season Suboperations I, J and M, (see below) were appended to Suboperation A to further expose the Late Preclassic Structure 1-1. Suboperations I, J, and M were consolidated at Lot 15 of Suboperation A; however only the northern 1x1 section of Suboperation A continued to be excavated. This consolidation created an excavation area that measured 2.3 m x 3 m (north/south x east/west) and will be referred to as Suboperation A-1 from this point forward. The following sections describe Suboperations I, J, and M, followed by a discussion of Suboperation A-1 (Figure 5.5).

Figure 5.5. Suboperation A-1.

Suboperation I consists of a 1 x 1 m unit placed directly on the northwest edge of Suboperation A (Figure 5.6). Controlled excavations in Suboperations A and B produced a well-established chronology; therefore it was not necessary to excavate according to features within Suboperations J, and I with the exception of a feature located in Suboperation M. This unit was established to further expand Suboperation A and to understand the architectural feature located in this subop. Large quantities of ceramics

were recovered in the first lot. The last paving episode was only preserved in some areas of the unit. Lithic debitage and obsidian bladelets were also recovered from Lot 1. Lot 2 consisted of all plaster floors, from 66 cm below Datum 1 to 127 cm below Datum 1, a total of 61 cm. Lot 2 was terminated at the gray (burned) marl fill. Lot 3 consisted of the gray (burned) marl fill that was found above the Structure 1-1 in Suboperation A, Lot 14.

Suboperation J, a 1 x 1 m unit placed directly on the northeast edge of Suboperation A (Figure 5.7). The first lot consisted of the humus layer. The last paving episode was less preserved in the Unit I. Lot 2 consisted of all the plaster floors; while Lot 3 consisted of the gray (burned) marl above a layer of construction tumble. Similar artifacts, ceramic sherds, lithic debitage and obsidian bladelets were recovered from this suboperation. Late Preclassic ceramics were recovered from within the burned sascab construction fill.

Figure 5.6. Suboperation I.

Suboperation M, located directly north of Suboperations A, J, and I was a 3 x 1.3 m unit (east-west and north-south). This suboperation was used to further expose the structure located in Suboperation A (Figure 5.8). Because controlled excavations in Suboperations A and B produced a chronology for the courtyard, Suboperation M was excavated in similar fashion to Suboperations I and J. The first lot consisted of the humus layer. The last paving episode in this lot was not well preserved due to a tree and its roots in the unit. Large quantities of ceramics and lithic debitage and obsidian bladelets were recovered from the first lot.

Figure 5.7. Suboperation J.

Figure 5.8. Suboperation M.

As excavations continued, a dark ashy lens was encountered in Lot 2. Further excavations revealed a circular feature, which was documented as Lot 3. This circular feature measures 55 x 60 cm in diameter and is 15 cm deep (Figures 5.9 and 5.10) and is located 30 cm above the terrace of the pole and thatch structure mentioned above, separated by dry construction fill and a plaster floor. It appears to be constructed into the plaster floor and fashioned out of limestone rocks measuring approximately 20 cm in length, suggesting that it was used for multiple occasions. There was a high concentration of ash, carbonized wood, large ceramic sherds and some chert flakes within

the feature (5.11). Three carbon samples yielded uncalibrated radiocarbon ages of 1890±38 B.P, 1850±37 B.P., and 1850±37 B.P., with 2σ calibrated range ages of A.D. 51-230, A.D. 74 to 244, and A.D. 75-240, respectively (see Table 6.13).

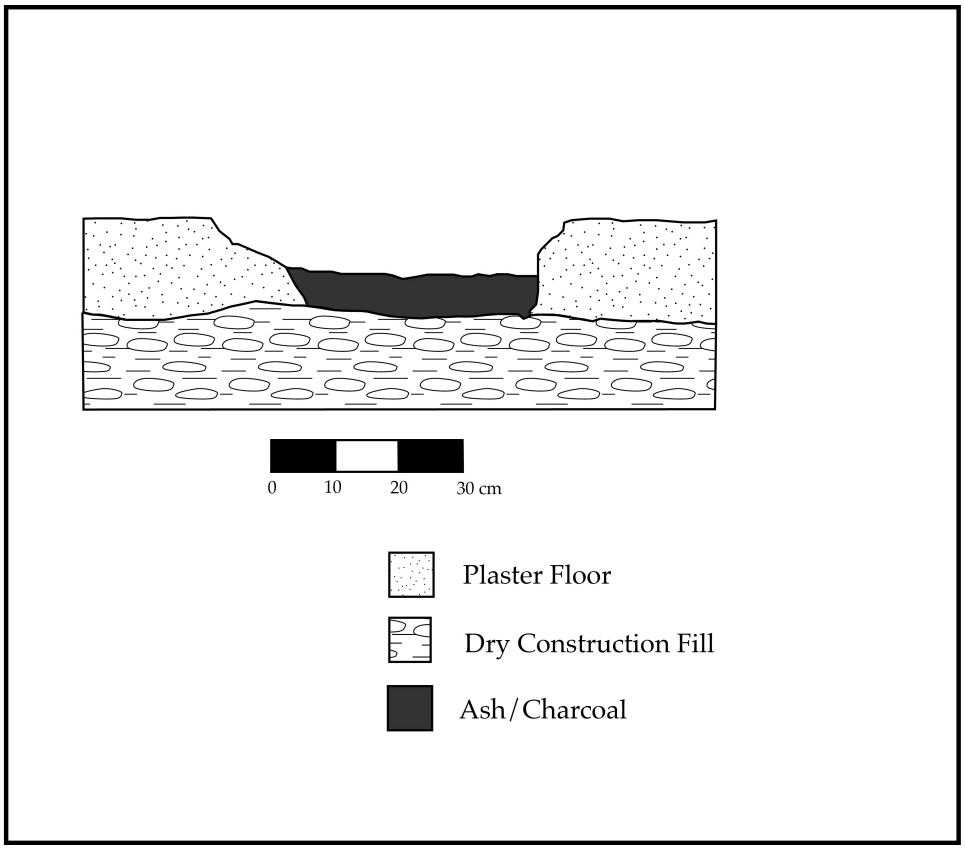

Figure 5.9. Profile of ritual hearth, Suboperation M.

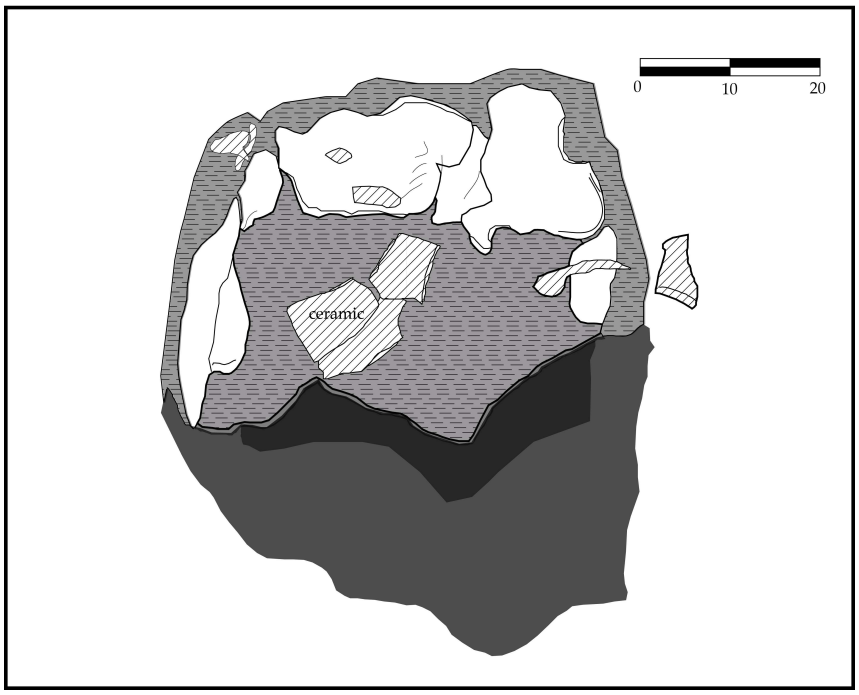

Figure 5.10. Plan map of ritual hearth.

Figure 5.11. Plan view of ritual hearth.

Two of the largest sherds were from a “mammiform tetrapod” vessel (Figures 5.12 to 5.15). Mammiform tetrapods are considered an assemblage of elite trappings that dates to the Protoclassic period (A.D. 150-250). It is argued that this artifact class served as a currency among the elite circles and was used to re-establish trade and political alliances that had collapsed during the Late Preclassic period (Reese-Taylor and Walker 2002). The large amount of ash and carbonized wood, the various layers of large ceramic sherds and the types of sherds (mammiform) imply that this feature was a permanent ritual burning hearth. Lot 4 of this suboperation consisted of the burned marl that covered the layer of construction tumble above the Late Preclassic Structure 1-1.

Figures 5.12 and 5.13. Ceramic sherds recovered from ritual hearth.

Figures 5.14 and 5.15. Mammiform tetrapod sherds recovered from ritual hearth.

Suboperation A-1 consisted of the consolidation of Suboperations A, I, J, and M (discussed above, Figure 5.5). The unit measured 2.3 m x 3 m (north/south and east/west) and commenced at Lot 15. Lot 15 of Suboperation A-1, located below a layer of burned marl, consisted of a layer of construction tumble presumably belonging to the Structure 1-1 encountered in Lot 14 of Suboperation A. The newly expanded unit revealed that the interior width of the structure measured more than 1 m, however the full extent of the building could not be ascertained (5.16). An exposed two-course masonry wall/brace measured 40 cm high. The western side the structure's interior a plaster floor was exposed. The eastern side of this lot further exposed the terrace/platform that was attached to the main structure (Figures 5.17 and 5.18). Small quantities of ceramics and lithic debitage were recovered from this lot.

Figure 5.16. Western side of Late Preclassic Str. 1-1.

The terrace and the interior section of the structure were treated as separate lots (Figures 5.17 and 5.18). Lots 16 and 17 consisted of the terrace. The cut stones forming the exterior alignments of the terrace were left in place, while the interior section was excavated. The terrace foundation (the initial platform construction) was built up with dark organic soil, followed by dry cobble fill. Ceramics, lithic debitage, a bird bone, carbonized wood (uncalibrated radiocarbon age of 2145±37 B.P., with 2σ calibrated age range of 356-53 B.C., see Table 6.13), and two large bifaces were recovered from Lots 16 and 17. Lot 17 was terminated at bedrock approximately 2.42 m below Datum 1 or approximately 2.24 m below the present ground surface. Lots 18, 19 and 20 consisted of the interior space of the structure. Lot 18 consisted of the plaster floor with a small number of lithic debitage and ceramic artifacts embedded in the plaster. Lot 19 consisted of dry cobble construction fill, lithic debitage and ceramic sherds. Lot 20 consisted of dark organic soil similar to the soil found in Lot 17. Ceramic sherds and lithic debitage were recovered from this lot as well. Lot 20 was terminated when bedrock was reached at approximately 268 cm below datum 1 or approximately 240 cm below the present ground surface. Although the full extent of the structure is not known, freestanding wall bases were preserved, the largest is five courses high (40 cm) (Figure 5.19).

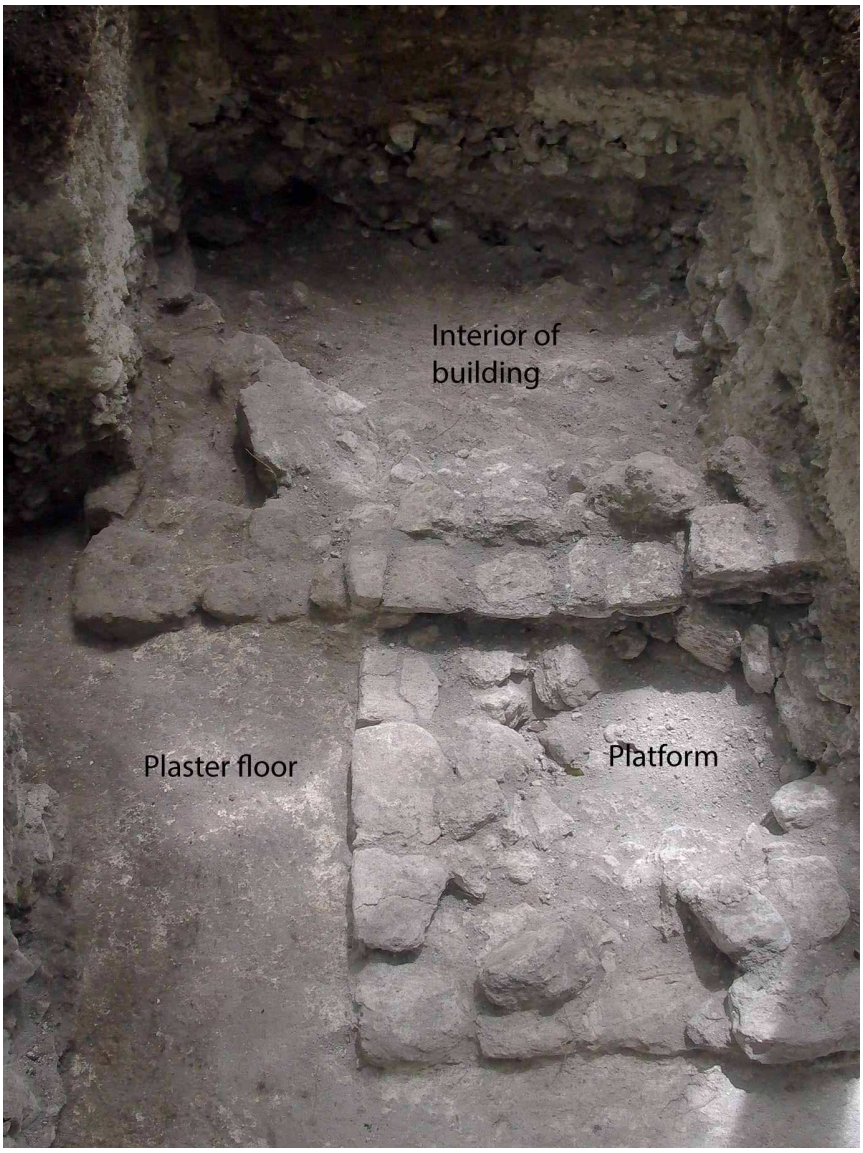

Figure 5.17. Suboperation A-1, Late Preclassic Str. 1-1.

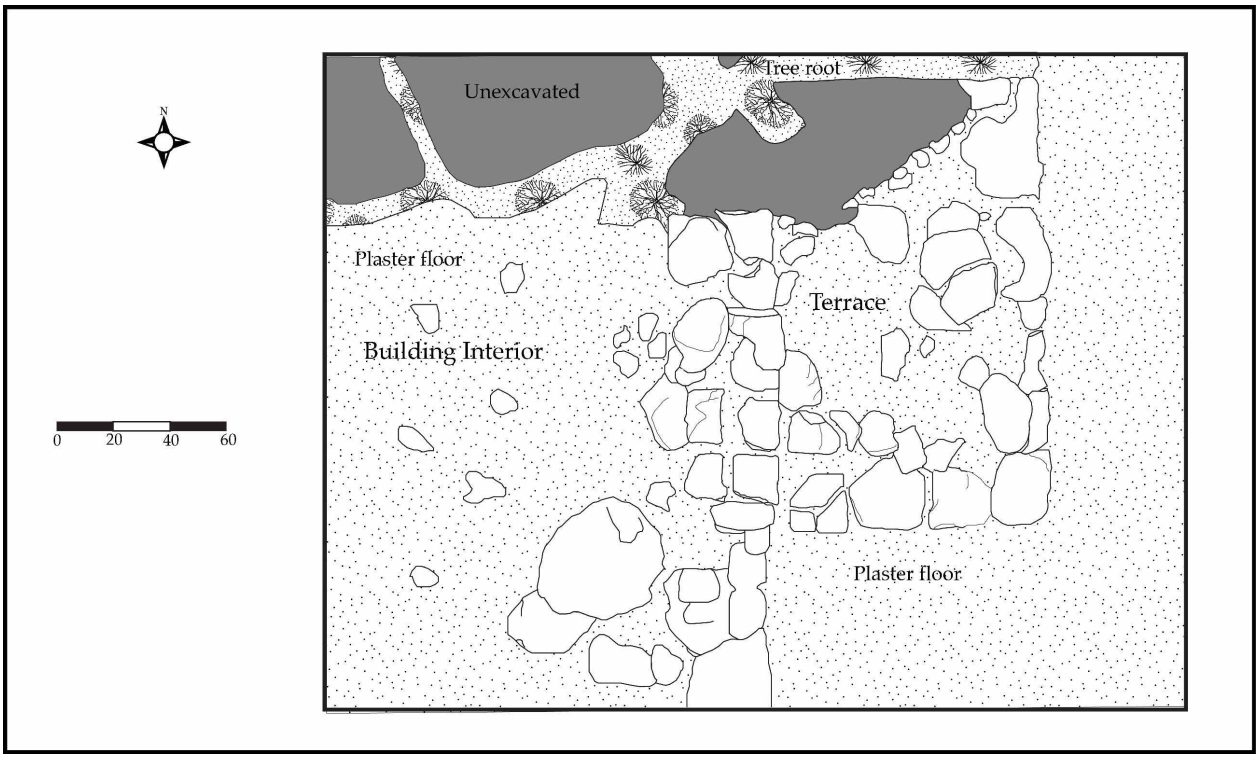

Figure 5.18. Plan view of Late Preclassic Str. 1-1, Suboperation A-1.

The platform/terrace attached to the east side of the structure measured 70 cm wide, however the length of the platform could not be ascertained. A 10-centimeter thick layer of burned sascab that covered the building (Figure 5.20) contained a small concentration of ceramics and some carbonized wood. The practice of burning and layering sascab (marl) on structures has been interpreted as termination ritual activity (Ambrosino 2003). Freidel (1986) also notes that layers of white sascab (marl) are diagnostic markers of building termination rituals at Cerros. A posthole found approximately 80 cm south and in alignment with the eastern brace is assumed to be a part of the building, implying that this structure's masonry braces supported a thatch and

pole construction (5.4). However, the excessive amounts of construction tumble that was found over the structure may indicate otherwise. Perhaps the building was entirely constructed of cut-stone masonry and destroyed by fire, and the posthole may be a component of a different architectural element. However the posthole's alignment with the eastern brace is suggestive of some sort of architectonic relationship between the two.

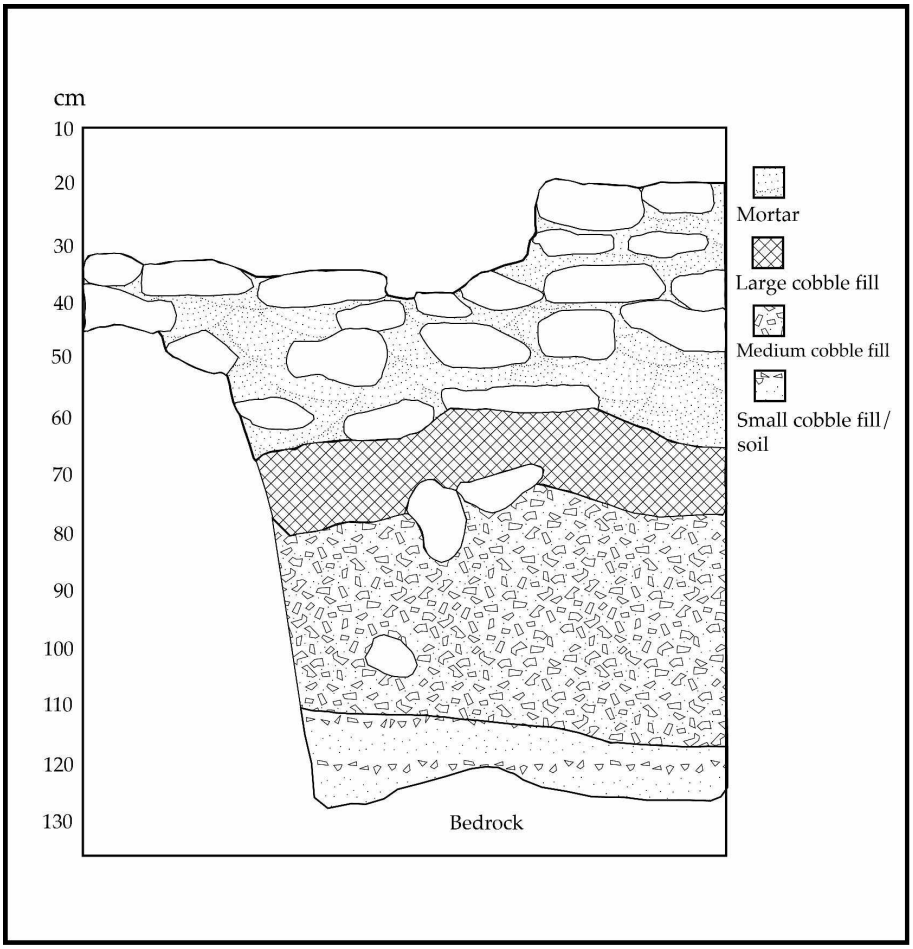

Figure 5.19. Late Preclassic Str. 1-1 terrace eastern side of wall.

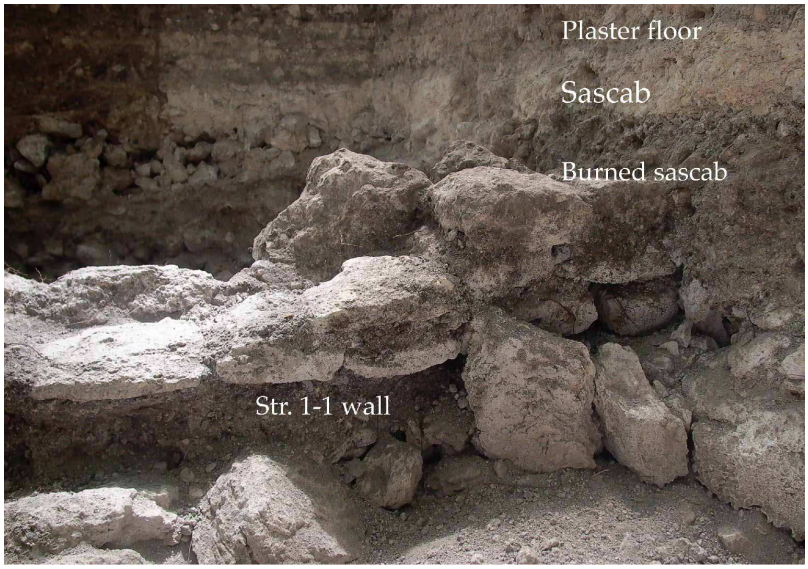

Figure 5.20. Eastern wall of Late Preclassic Str. 1-1.

Suboperation B consisted of a 2 x 2 m north of Suboperation A. A total of 22 lots was excavated, producing a depth of 3.8 m from the plaza present ground surface. This unit also had numerous plaster floors of various thicknesses and preservation (Figure 5.21). The last paving episode was found in Lot 2 of this unit and only partly preserved. Several significant finds were discovered in this unit as well. Late Preclassic activity, in the form of burning, which produced ash and small pieces of carbonized wood, was documented in the southeast corner of Lots 14 and 15 on a limestone surface approximately 2 m below the present ground surface. The concentration measured approximately 20 x 15 cm in circumference. Carbonized wood samples were collected and analyzed and yielded uncalibrated radiocarbon ages of 2160±37 B.P., 2200±37 B.P., 2070±37 B.P., and 2130±37 B.P., with 2σ calibrated age ranges of 362-100 B.C., 378-176 B.C., 192 B.C. -A.D 5, and 352-47 B.C. (see Table 6.13). A dark soil was also found

within these lots. Such an anthrosol was also located on the bedrock in Plaza A and is believed to be associated with the first occupation at La Milpa (Sagebiel 2005). The oldest cultural layer was present in Lot 16 and may extend into Lot 17, where a small number of probable lithic artifacts were recovered.

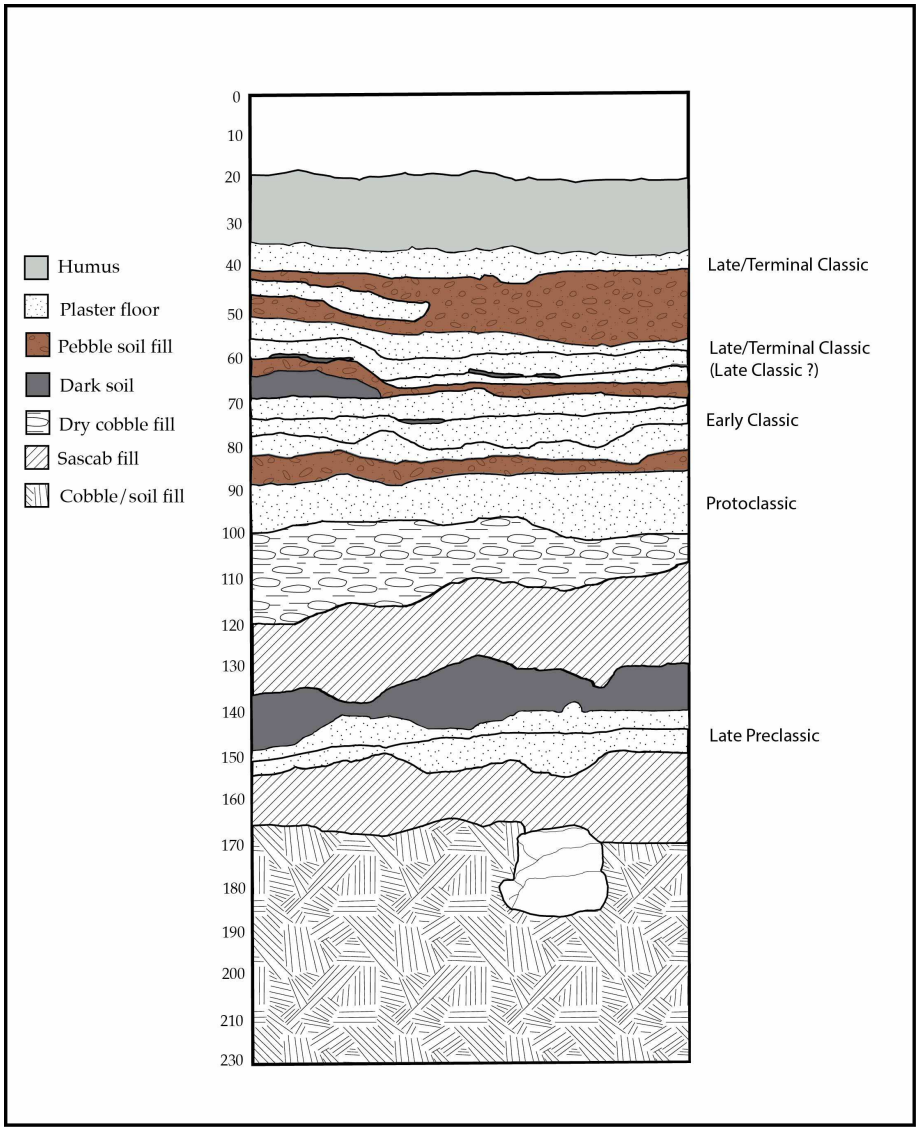

Figure 5.21. Western profile, Suboperation B.

The presence of sascab entertained the probability of an earlier occupation layer (Middle Preclassic); therefore excavations continued to 3.8 m below the present ground surface on the southern half of the unit (1 x 1 m excavation). Lots 17, 18, 20, and 21 consisted of a very thick layer of decomposed limestone (sascab). The sascab layer is

approximately between 1.4 to 1.5 m thick and contained thin lenses of soil in between and limestone cobbles. Artifacts were not recovered from these sterile layers. As excavations proceeded, a significant increase of large limestone cobbles was noted, and a hard limestone bedrock surface was encountered in the western end of unit. This suggests that the sascab in this unit was *in-situ* decomposed bedrock, rather than having been brought in from another locale for infilling and the vertical construction of the platform (see Littmann 1958). These deep excavations revealed that activity was taking place on the bedrock surface, approximately 2 m below the present ground surface, prior to paving and the formalization of this space. The most significant activity was the construction of a *chultun* burial chamber into the bedrock (see below).

Suboperation S was placed within the northwest section of Suboperation B, within the *chultun*/subterranean burial chamber located on the bedrock surface (Figures 5.22 and 5.23). There appears to be an unmistakable association between the burial chamber and the burning activity on the bedrock surface documented in the southeastern part of Suboperation B (Lots 14, 15, 16, and possibly Lot 17).

Figure 5.22. Chultun 1 entrance, Suboperation B.

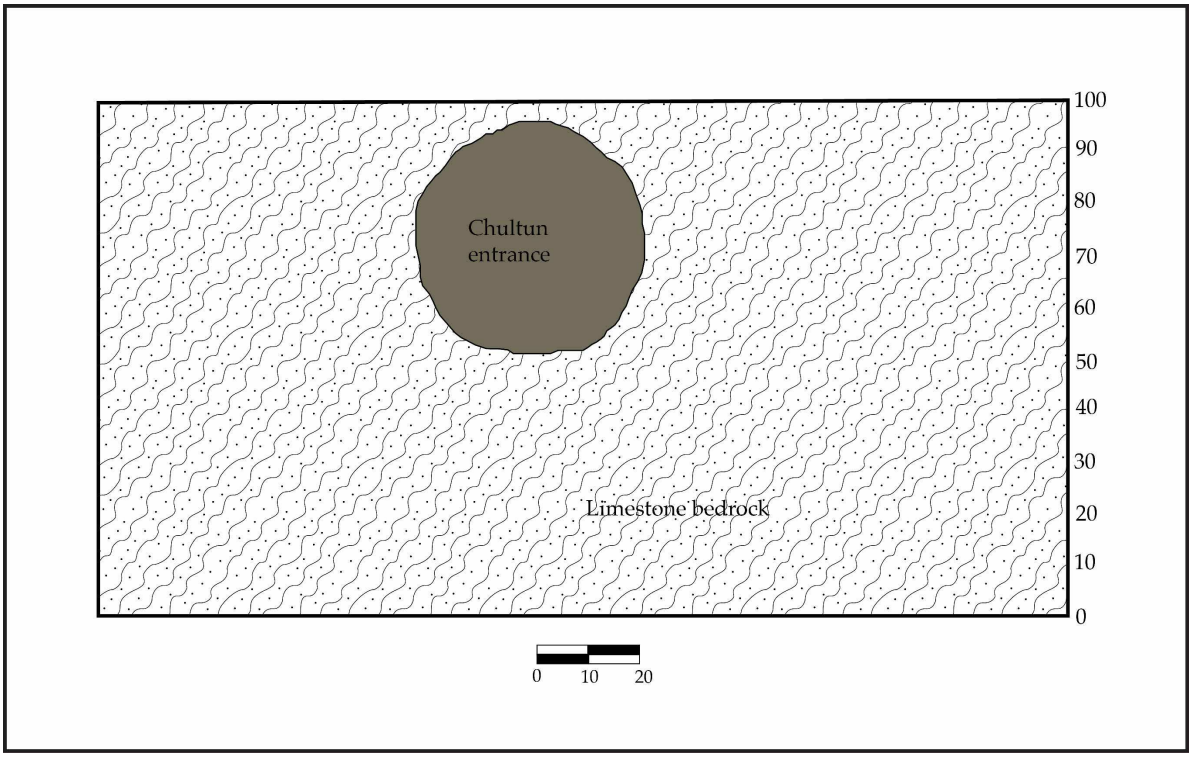

Figure 5.23. Plan view of Chultun 1, Suboperation B.

The Maya word *chultun* was first used by Edward H. Thompson in 1897 and refers to an excavation or a cistern in stone (Thompson 1904; Tozzer 1913). *Chultunob* are very common in the Petén region and are believed to have served a variety of purposes, including food and water storage as well as burial chambers (Thompson 1904; Tozzer 1913). The *chultun* in the Los Pisos Courtyard can be classified as a lateral chambered type (Figures 5.24 and 5.25). It measures 1.70 x 1.90 m and is located 2.3 meters below the present ground surface. Large square shaped chert boulders were placed at the entrance of the chamber and appear to have served as steps or to support the chultun infrastructure (Figure 5.26). It is possible that this chultun was made prior to any

masonry construction at this location, however it has been noted that at Tikal's North Acropolis monumental construction took place on the natural limestone surface.

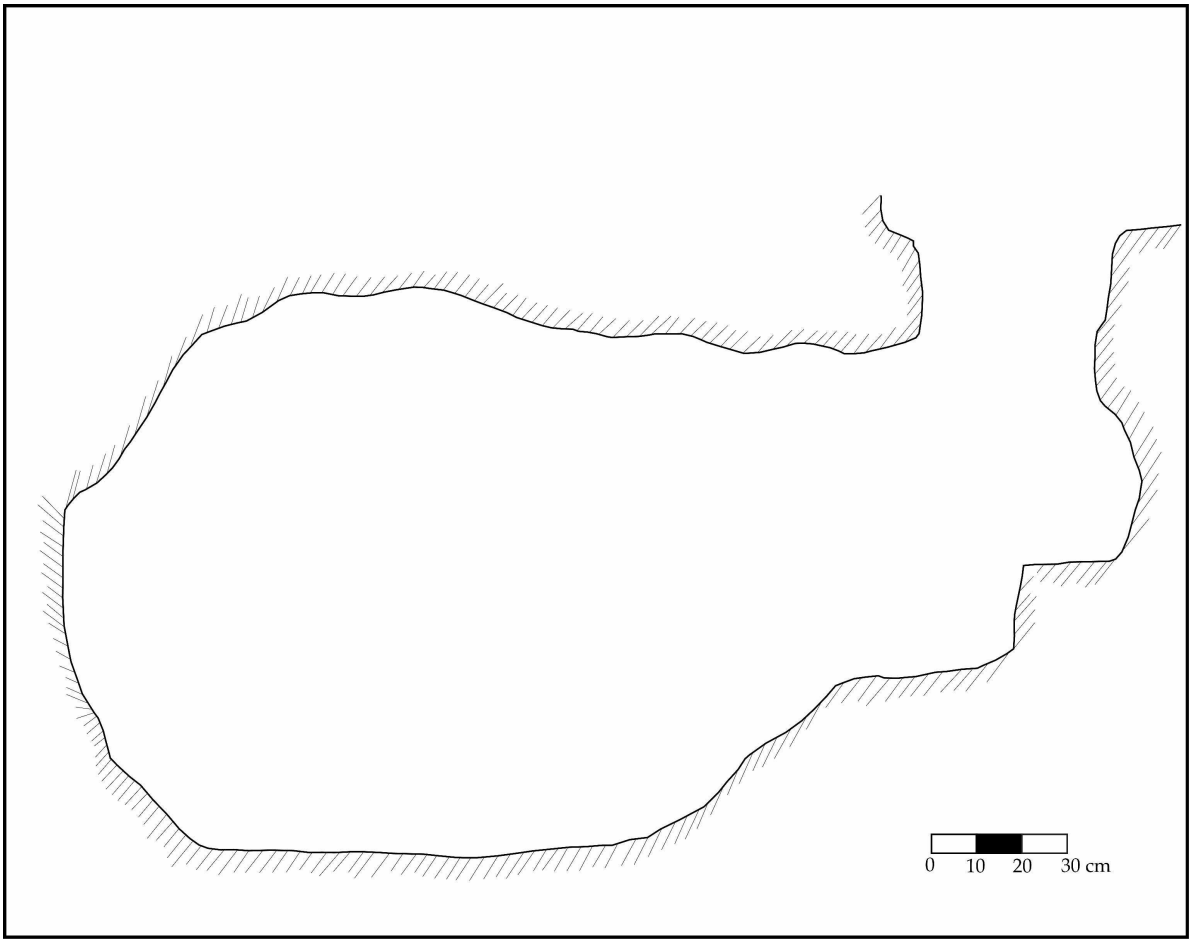

Figure 5.24. Chultun 1 profile, Suboperation S.

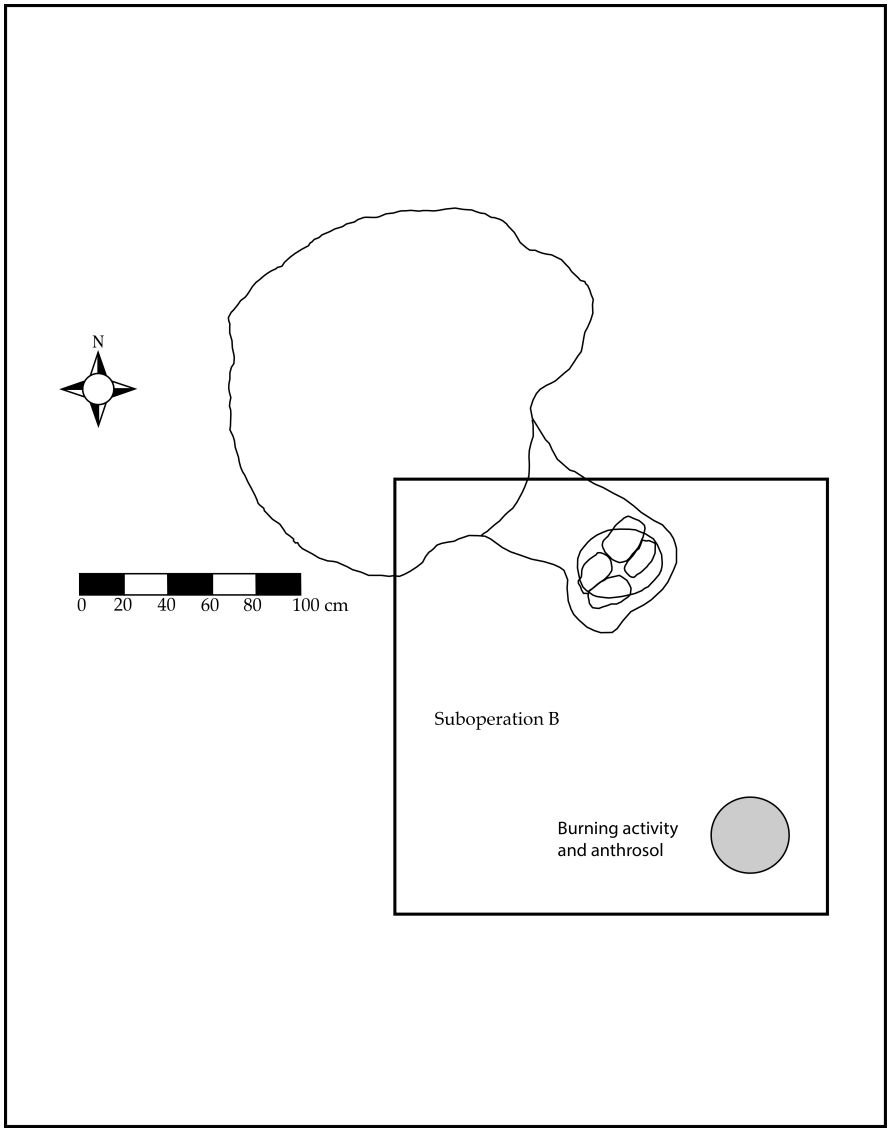

Figure 5.25. Plan view of Chultun 1 and burning activity.

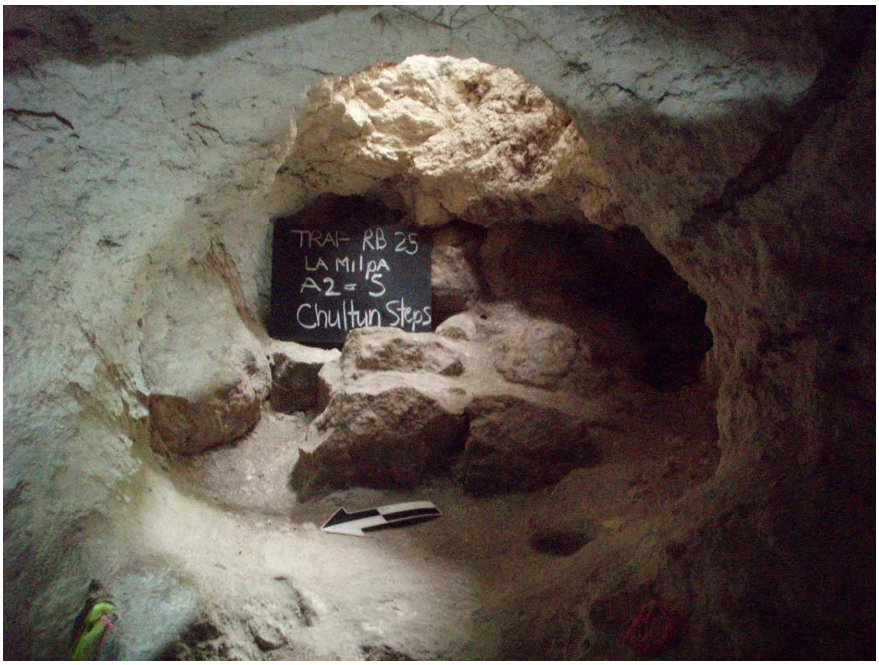

Figure 5.26. Chultun 1 entrance and steps.

The dedicatory burial of a young male (~18-25) was encountered within the chultun chamber and is considered one of the most consequential finds and a fundamental element of this dissertation (Figures 5.27 and 5.28). This burial was interred within the bedrock chamber during the initial use and occupation of this space during the Late Preclassic period. It appears to "dedicate" the construction of the group and perhaps of the ritual precinct (North Group). This type of dedicatory mortuary ritual has been observed within Tikal's precinct and within eastern oratories in Plaza Plan 2 layouts documented by Becker (1971: 208). However, in those instances the burials were dedicated to the construction of individual buildings and, in the case of Plaza Plan 2 burials were placed through the floor of an existing platform.

Figure 5.27. Burial 1 interment in Chultun 1.

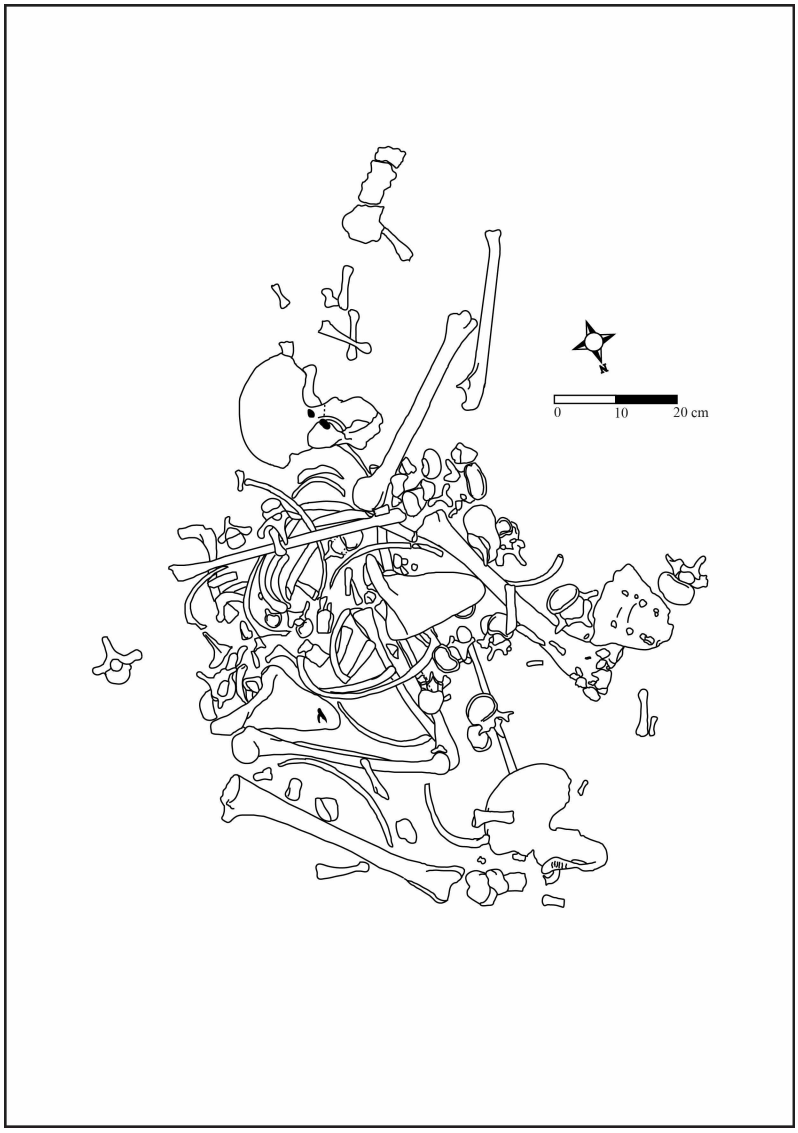

Figure 5.28. Burial 1, Suboperation S.

It is assumed that this was a primary burial due to some preserved articulation and the presence of small bones (Figure 5.29). The articulation of an arm and ribs suggests that the individual was placed in the sitting position, with his hands across his stomach; the individual may have been bundled (Figures 5.30, 5.31, and 5.32). As decomposition

took place the individual fell forward. The burial was mapped and excavated, revealing that the cranium and femora were missing. The removal of long bones and the cranium is regarded by many as evidence for the practice of ancestor veneration (McAnany 1998). This form of ancestor veneration has been interpreted as the raising of the status of a deceased ancestor. The remains were beneath approximately 15 cm of dark organic soil (Figure 5.33) that contained pieces of carbonized wood suggesting a ritual event, perhaps a post-burial ritual during which the removal of the long bones (femora) and cranium occurred in conjunction with "Sealing the Tomb." Items such as copal incense and pinewood along with other materials were burned during rituals honoring the deceased (see Hammond 1991b; Morehart *et al*. 2005). The carbonized wood samples yielded uncalibrated radiocarbon age ranges of 2150±43 B.P., 2100±37, 2120±37 B.P., and 2140±60 B.P., with 2σ calibrated age ranges of 360-56 B.C., 204-37 B.C., 210-44 B.C., and 372-42 B.C., respectively. Human bone produced an uncalibrated radiocarbon age of 1780±40 B.P., with a 2σ calibrated are range of 100 B.C.-A.D. 70 (see Tables 6.13 and 6.14).

Figure 5.29. Burial 1, articulated hand.

Figure 5.30. Burial 1, articulated arms, hand, and ribs.

Figure 5.31. Burial 1, articulated arm and ribs.

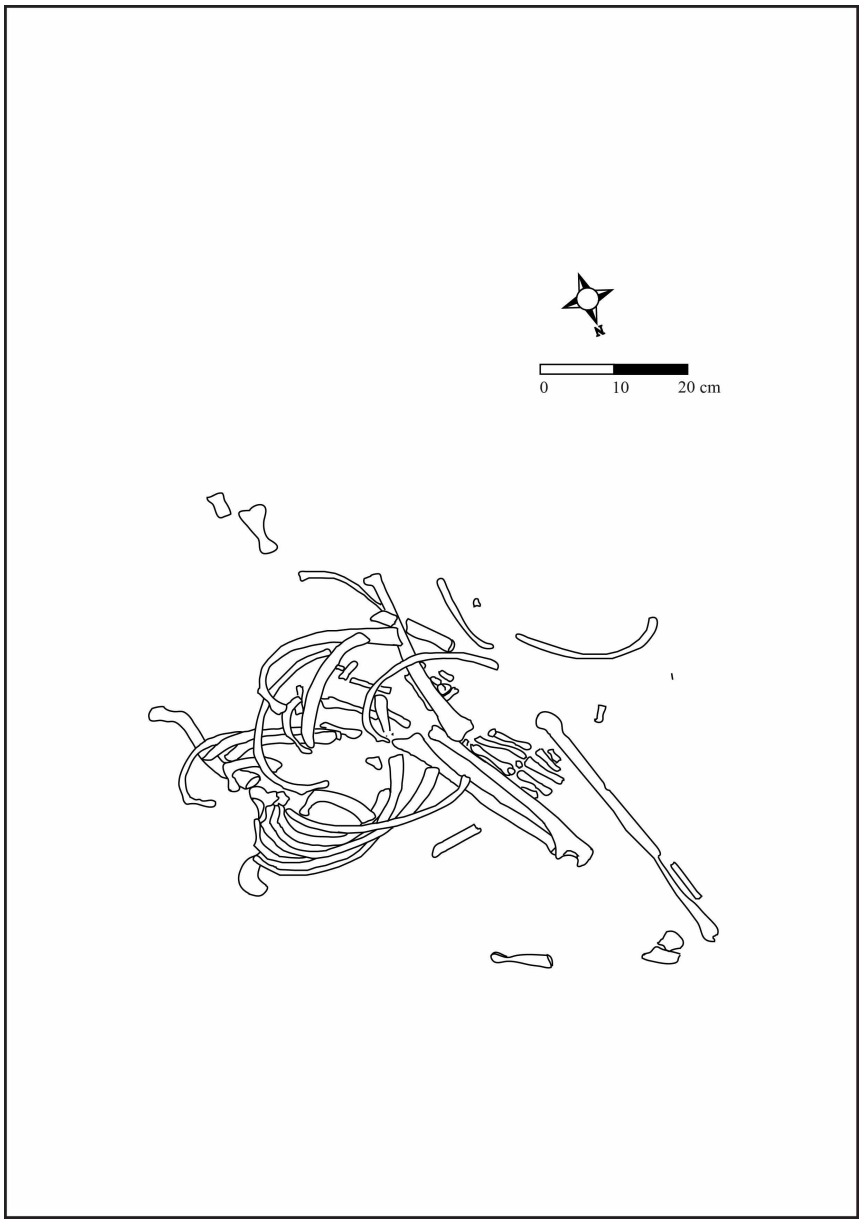

Figure 5.32. Burial 1, articulated arms, clavicle, hand, and ribs.

Figure 5.33. Dark organic matrix overlaying Burial 1.

The dark organic soil may have been decomposed organic funerary objects (plants, carved wood objects, e.g., wooden shield, quetzal feathers, gourds, leather, textiles, burial mats, foodstuffs and perhaps even clothing). A variety of small animal bones including avian and rodent were also present, perhaps as part of offerings (compare Bell *et al.* 2004:140). Evidence of perishable items, perhaps clothing, has been documented throughout Mesoamerica. For example: Tomb 6 at Lambityeco and royal tomb in the Northwest Palace; Rio Azul Tombs 19 and 23; and Tikal Burial 48 (Carlsen 1986; Coe 1990:120; Lind and Urcid 2010: 173; Lee *et al.* 2004) all containted dressed individuals. There is also a probability that he was placed on a perishable platform or wooden bier, thus creating a large volume of dark organic matrix. This type of burial practice has been suggested for other burials in this region, including the Early Classic burial at the northeastern corner of Str. 1 at La Milpa. The burial lacked non-perishable funerary objects; however meticulous screening using 1/16-inch screen resulted in the

discovery of a small piece of a carved shell ornament and red chips of ceramic slip, suggesting that at one point non-perishable funerary objects were once present and were perhaps removed when the femora and cranium were removed for curation. Descendants often captured the essence of their ancestors by retaining the identity and status in life that is reflected in material objects (Joyce 2000a).

Suboperation AG was a 1 x 1 m unit placed 2 m west of Str. 9 towards the center of the courtyard. It was established to verify if the poorly preserved plaster floor that was encountered in Suboperations A, B, I, J, and M was the last paving episode, or if an earlier paving episode could be identified. For example, a layer of small pebbles may be representative of aggregate used to bind plaster floors (Loten and Pendergast 1984). It was crucial to verify and determine the last paving episode in the courtyard, because nearly all the artifacts were recovered from the plaster floor surface that was present in all plaza suboperations. As excavation of this unit proceeded, some ceramic and lithic material and collapse debris from Str. 9 was observed, but oddly enough plaster floors were lacking. One of the technicians that had worked with LaMAP noted that this was probably one of the areas where Norman Hammond excavated. More surprisingly was the fact that bedrock was reached at 60 cm (Figure 5.34).

Figure 5.34. Suboperation AG.

There is evidence that the platform was built on an undulating natural hillock. For example bedrock in the northern end of the courtyard was not reached and appeared much deeper than in the southern end of the courtyard where bedrock was reached at 2 m. However, reaching bedrock at 60 cm was very perplexing given that the unit was 2 m east and 7 m north of the Suboperation B, where bedrock was 2 m below the present ground surface. What is clear is that a section of the bedrock surface during Late Preclassic times was cleared and leveled in the southern region of the courtyard, but a steep rise and then a drop going in a northward direction was not leveled with a plaster floor until the Early Classic period.

Structure 13—Suboperations C, D, E, F, R, T, U, AB, AF

Located on the southern end of the courtyard, this structure is the third largest of the four structures (Figure 5.34a). The building was selected for excavation to explore the chronology of construction phases and to define the floor plan and dimensions of the last construction program in an effort to establish possible function(s). Suboperations C, D, E, and F exposed the axial staircase of Structure 13 (Figure 5.35 and 5.36). Suboperations AB and AF were designed to explore the interior space of the superstructure and determine the number of rooms and their dimensions, as well as to locate built in features such a niches and benches. Several Suboperations (R, T, and U) were placed on the northern façade of the structure to define its dimensions and form.

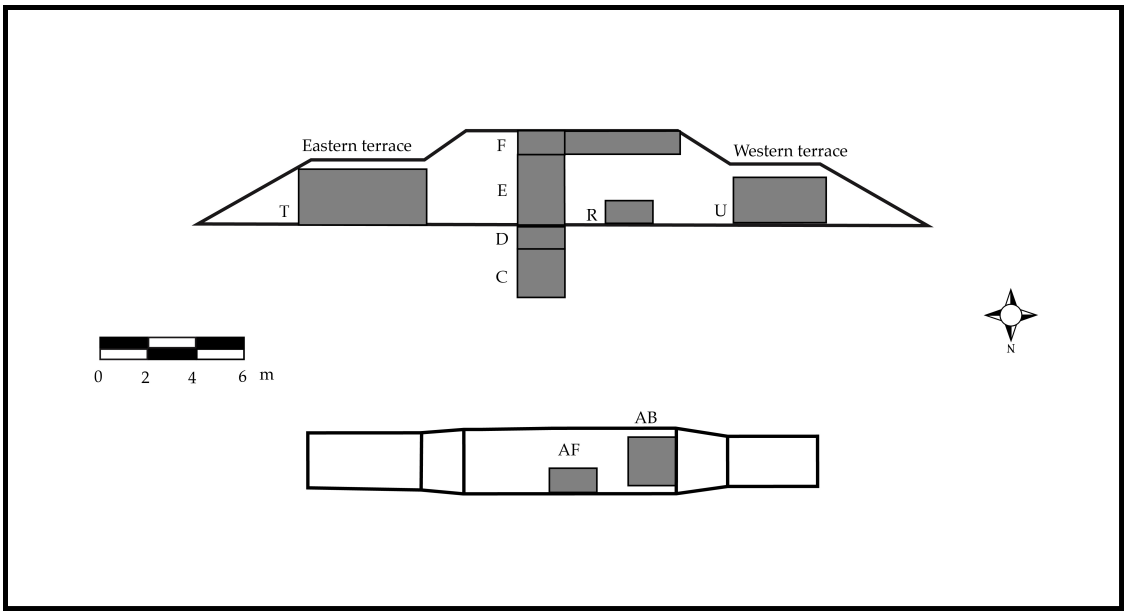

Figure 5.34a. Excavations carried out on Structure 13.

Figure 5.35. Structure 13, northern façade axial staircase.

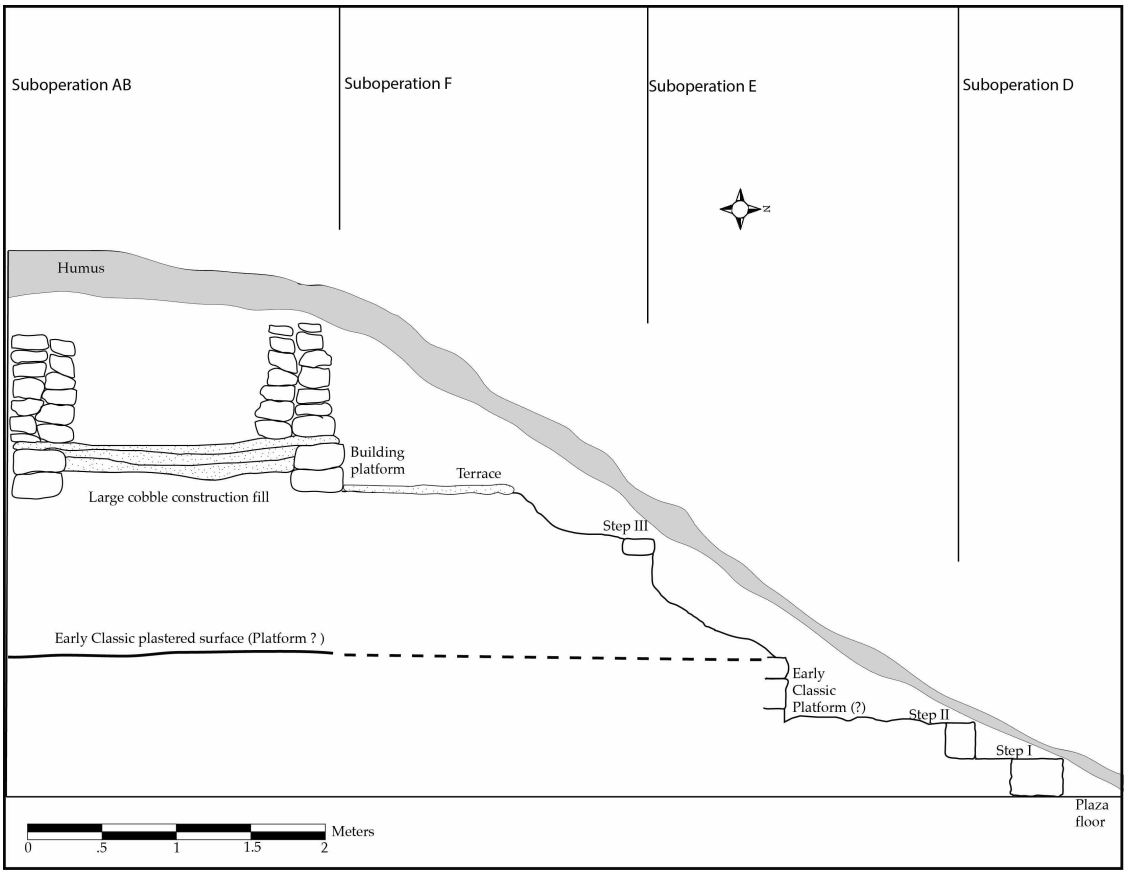

Figure 5.36. Structure 13, profile depicting an Early Classic platform and Late/Terminal Classic superstructure.

Suboperation C consisted of a 2 x 2 m axial unit at the base on the northern façade of the structure (Figures 5.37). A poorly preserved plaster floor abutting the first stair of the structure was encountered in the southern end of the unit. This floor is most likely the last paving episode that was encountered in Suboperations A, B, I, J, and M. A rock alignment, possibly a landing or a foundation, extended into the plaza area and was discovered in the northern end of the unit (5.38). This rock alignment feature extended the entire length of the sub-operation 2 m (west-east), and is 60 cm wide (north-south).

The suboperation was not extended, therefore the full extent of the landing (east-west) is not known. A shell bead and a Postclassic projectile point/knife were recovered in this suboperation (Figures 6.21 and 6.35). Ceramic and lithic debitage were also recovered. The largest number of obsidian prismatic blade fragments were recovered from this unit, (see Chapter 6).

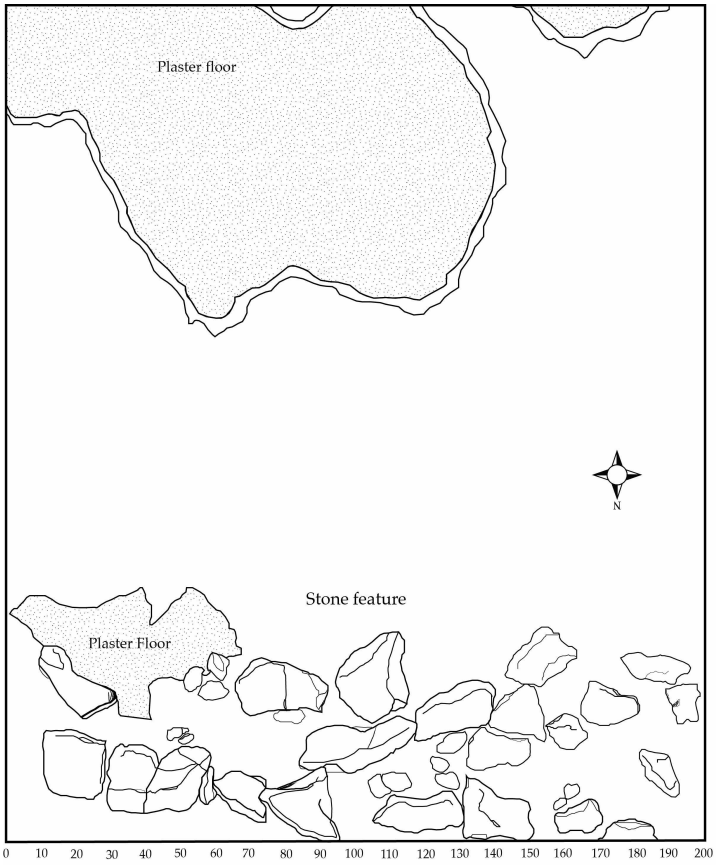

Figure 5.37. Suboperation C, plaster floor and stone feature.

Figure 5.38. Suboperation C, plaster floor and stone feature.

Suboperation D consisted of the 2 x 1 m (east-west x north-south) unit abutting the south end of Suboperation C. The basal step of Structure 13 was exposed in this suboperation (Figure 5.39). Ceramic artifacts from this suboperation were determined to be Tepeu 2-3 (Late/Terminal Classic). Lithic artifacts consisting of chert debitage and obsidian bladelets were also collected.

Figure 5.39. Suboperation D, Structure 13.

Suboperation E consisted of a 2 x 3 m unit (east-west x north-south) and abuts the southern edge of Suboperation D. This unit further exposed the axial staircase; a total of three steps were located in this suboperation, bringing the number of steps to three for the Late/Terminal Classic construction phase (Figures 5.36). Two additional alignments were observed in this unit; however, they were too poorly preserved to document. The remaining alignment was well preserved and appears to belong to an earlier construction phase, (Figures 5.35, 5.36 and 5.40). Remnants of a plastered surface at the base of this well-preserved alignment were documented; a different construction technique was evident, indicating that it was part of an earlier construction phase. Artifacts in this suboperation were very sparse consisting of ceramics and lithic debitage.

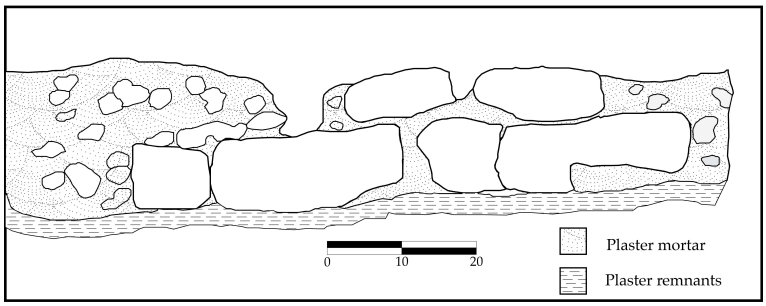

Figure 5.40. Early Classic period feature, Structure 13.

Suboperation F consisted of a 2 x 2 m unit and was placed on the southern end of the Suboperation E to expose the upper most section of the staircase. Evidence of steps was lacking in this suboperation, indicating that excavations had reached a terrace. A plaster feature, a probable posthole, was located on the western side of Suboperation F (Figure 5.41). Two additional raised plaster masses were located, but were too decomposed to say with certainty that they were postholes. Perhaps the posthole(s) supported an awning that covered the terrace. A large cut stone on the southwest corner of Suboperation F may have served as an architectonic element. Small quantities of lithic and ceramic artifacts were collected from this suboperation.

Figure 5.41. Possible posthole support, Suboperation F.

In 2009 this unit was expanded 1 m south to further expose a plastered terrace surface. A three-course masonry wall was encountered at the southern extent of the unit. This has been interpreted as a building platform with remnants of a stuccoed surface. Expansions of this suboperation (1 m north/south and 5 m east/west) were initiated to further expose the terrace and locate the entrance to the superstructure. The terrace was ran the entire length of the superstructure and was approximately 1.3 m wide (Figure 5.42). The large cut stone that was first discovered in 2007 was further exposed and measured. Its dimensions are 65 x 55 x 20 cm (Figures 5.43 and 5.44). Its location near the entrance to the building may indicate a specialized function. Additionally, this cut stone appeared significantly larger and of better quality in comparison to cut stones used for the construction of Str. 13 and could possibly represent a spolia.

Figure 5.42. Structure 13, northern façade terrace.

Hammond (1982) documents a cut stone roughly the same size and shape during excavations of Str. 35 at the site of Cuello, Belize. He concludes, based on its location in front of an earlier construction phase of Structure 35 and associated ceramic vessels that the stone corresponds to a plain monument that should be designated as a stela (Hammond 1982: 401). Although the large cut stone found at the center of Superstructure 13 may be representative of what Hammond encountered at Cuello, its

location is more indicative of an architectonic element—perhaps a large jambstone. Brett Houk (personal communication 2011) has documented several of these from throughout the Three Rivers Region and does not believe that they could be classified as stela.

Figure 5.43. Structure 13, northern façade.

Figure 5.44. Large cute stone (spolia), Structure 13.

Significant amounts of red painted molded stucco were recovered from this unit, indicating that the northern façade of the superstructure was covered in molded and painted stucco. Although ceramic and lithic material was collected, they were not located *in situ*, making them inconsequential for determining the use of the structure. A piece of carbonized wood was discovered in the western edge of the unit. Beta Analytic Inc. provided an uncalibrated radiocarbon age of 440±40, with 2σ calibrated age range of A.D.1400-1450 (Table 6.14), suggesting that there may have been some sort of activity within the courtyard group during this time, perhaps some form of site veneration as has been documented by Hammond and Bobo (1994), however, more evidence is needed to support this interpretation.

Suboperations AB and AF were established to explore the form and layout of the superstructure on Structure 13. *Suboperation AB* consisted of an excavation measuring 2 x 2 m placed on the western end of the summit in order to reach the interior of the

superstructure. Excavations revealed that the room was completely infilled, but it is not known if the room was intentionally infilled, or if the walls and roof collapsed into the room. The interior room fill consisted of randomly placed cut stones, decomposed limestone and very few artifacts.

Figure 5.45. Interior of Superstructure 13 and Early Classic platoform.

The interior room measured 1.18 m north-south and measured 8.75 m in length (Figure 5.45). Although the room was not completely excavated, length measurements were estimated from the entrance to the western end of the excavation. Three plaster floors were observed and documented (Figure 5.46), indicating that the room was used for a long time. Multiple plaster samples were taken for chemical analysis. Methods and results of the chemical analysis are discussed in Chapter 6 (see Table 6.12). Remnants of all three two-course masonry walls (north, south, and west) were still intact and measured 80 cm in height and 55 cm in thickness. Based on the lack of vault stones, the roof was most likely a pole and thatch or mortar and beam construction, although the wall (55 cm) was capable of supporting a vault, e.g., Piedras Negras Str. J-2, Room 6 (Satterthwaite 1935). The superstructure was constructed on a building platform that was 30 cm in height. Not a single artifact was located on the floor surfaces, which is typical of the Maya sweeping and cleaning patterns, as well as, a staggered abandonment processes.

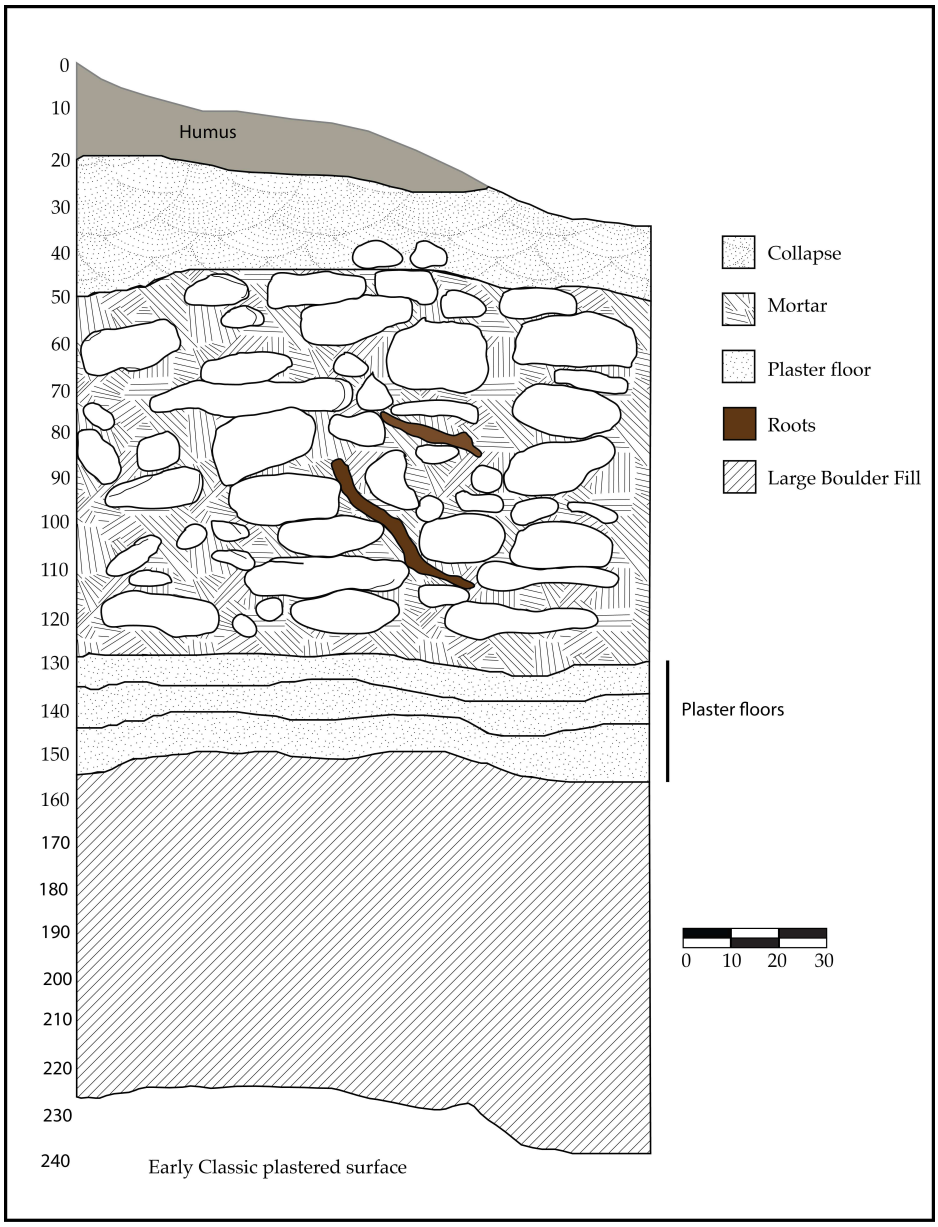

Figure 5.46. West wall of Superstructure 13.

An earlier platform was discovered within the core of this structure. Based on the ceramic analysis, the platform was constructed sometime during the Early Classic period;

however, the extent of the platform is not known, for excavations ceased due to time constraints. This feature was approximately 2.40 meters below the surface of the structure's summit, making the platform higher than 1.60 meters (Figures 5.36, 5.45, and 5.46). Excavations in the plaza floor revealed Early Classic paving episodes between 50 and 60 cm below the floor surface (Figure 5.21), indicating that this construction may have been 2.10 m and 2.20 m in height. The length of the Substructure 13 was approximately 8.75 m. Perhaps the length of Str. 13 Sub-1 roughly corresponds to this length. This platform may have been 2.20 m high, 4 m wide and 7 m long.

Figure 5.47. Early Classic platform, Structure 13 Sub-1.

Evidence for postholes on the surface was not observed on the western end of the platform. Since only the western end was exposed, it is not clear if a pole and thatch or masonry building was present on the summit of this construction. The plastered surface was broken on the western most section (5.47); perhaps an intrusive cache documenting a commemoration, celebration, intensification or propitiation was part of the Early Classic construction project (Coe 1959:119). Time restrictions did not permit further excavations to explore such activity. However, this construction (platform) visibly aligns with a wall/step feature found during excavation of the axial staircase of Str. 13, Suboperation E (see Figure 5.36)

Suboperation AF measured 2 x 1 m (east-west/north-south) and was placed on the central summit of the structure in an attempt to locate the axial entrance. An expansion was made, 1 m east-west by 50 cm north-south. The axial entrance into Structure 13 was finally encountered and is inset a few centimeters from the exterior platform wall. The entrance is approximately 1.15 m in length (east-west) and 75 cm in width (north-south) from the edge of the platform wall to the end of the second course of stones (Figures 5.48 and 5.49). The entrance width is not comparable to the width of entrances of "palace-type structures" which can range from 1.28 m to 1.80 m, and an anomalous entrance measuring 2.16 m (see Satterthwaite 1935). Very few artifacts were encountered within this unit.

Figure 5.48. Entrance of single room Superstructure 13.

Figure 5.49. Superstructure 13.

Suboperation R consisted of a 2 m x 1.5 m (east-west and north-south) unit placed on the northern façade of Structure 13. This suboperation was placed two meters to the west of the axial staircase that was exposed during the 2007 season. Suboperation R exposed three steps that align with the steps from the axial staircase (Figure 5.50). The first lot consisted of the humus layer mixed in with collapsed cut stones most likely from

the top of the structure. Ceramic sherds, lithic debitage and obsidian bladelets were recovered from this suboperation. Based on the ceramic analysis this was a Late and Terminal Classic construction phase. This suboperation suggests that an outset staircase runs the entire length of Structure 13.

Figure 5.50. Suboperation R, stairs along northern façade of Structure 13.

Suboperations T and U were carried out during the 2008 season to expose both the northeast and northwest terraces that flank either side of Structure 13 (Figure 5.34a). Excavations revealed that the terraces flanking Str. 13 were not symmetrical. It was not clear what purpose the terraces played in relation to the rest building; they seemed too small for even perishable constructions. *Suboperation T,* located on the northeastern

façade of the structure, initially a 2 x 1 m unit (north/south and east/west), was expanded in all cardinal directions to further expose the limits of the terrace core face encountered during the 2008 season (Figure 5.51). This core face aligned with the northern façade of the building platform exposed in Subop F (Figures 5.35 and 5.43). Two additional features were exposed, the terrace facing stones (Figures 5.52 and 5.53) and the eastern stair side.

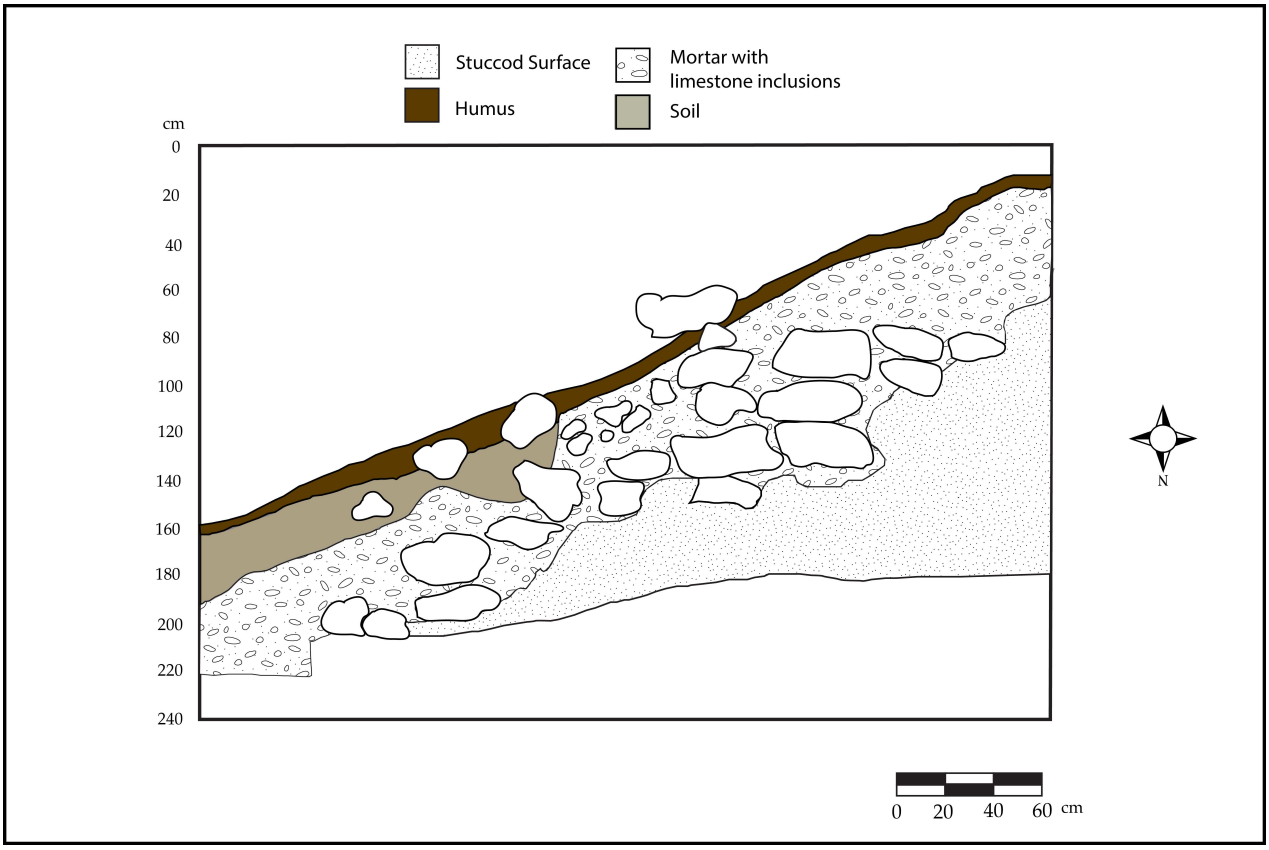

Figure 5.51. Eastern terrace core face, Structure 13.

Figure 5.52. Core face and facing stones of eastern terrace, and stair side of Structure 13.

Figure 5.53. Eastern terrace core face and facing stones.

The first stair alignment was located at the southwest end of the unit and associated with the eastern stair wall (5.54). The core face had remnants of a stuccoed surface, indicating that this core face was decorated, and at one time may have stood independently, thus suggesting that the second element functioned more as an expansion (5.51). This modification was done late in time, perhaps one of the last alterations to the building. Both the east and west terraces had facing stone expansions. Small amounts of artifacts were recovered from these excavations. The eastern terrace was longer, measuring 5 m at the summit, while the western one measured 3.7 m. It is proposed that the eastern side of the plaza was more visible from Plaza A; perhaps the occupants of the Los Pisos Courtyard further closed off visual and physical access by constructing a larger terrace on the eastern side.

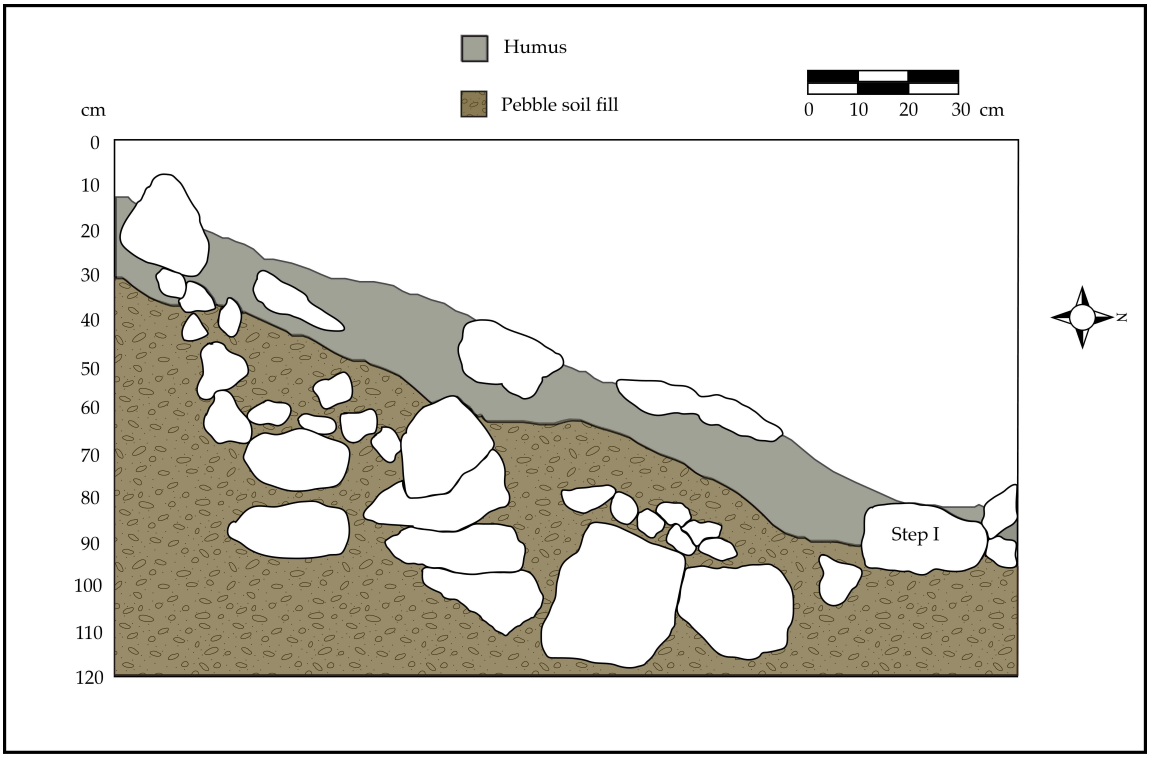

Figure 5.54. Stair side of Structure 13.

Excavations in Suboperation U were located on the western terrace of Structure 13 (Figure 5.55). The initial unit was opened as a 1 x 1 m unit in 2008, and reopened and expanded into a 2.5 x 2.5 m unit in 2009. Based on the location and the fact that it does not align with the core face of the eastern terrace or the building platform core face located in Subops F and T (Figures 5. 43 and 5.52), it is assumed that excavations revealed the terrace facing stone expansion, rather than the core face. The corner of the basal stair alignment was exposed as well as the terrace facing stone expansion. Excavations in this subop exposed four stair alignments that ran along the entire northern façade of Structure 13 (Figure 5.55). A very eroded plaster floor abuts the basal step and

matches the floor located in Subop U (southern façade of Str. 15). The floor appears to be the part of the last paving episode dating the Late/Terminal Classic period. Jones (1989) observed this phenomenon at Tikal and suggests it is indicative of an extensive construction project involving multiple buildings, in this case Buildings 13 and 15 or perhaps the group as a whole. This unit produced more artifacts than were recovered from Subop T but the amount was small and not recovered *in situ*.

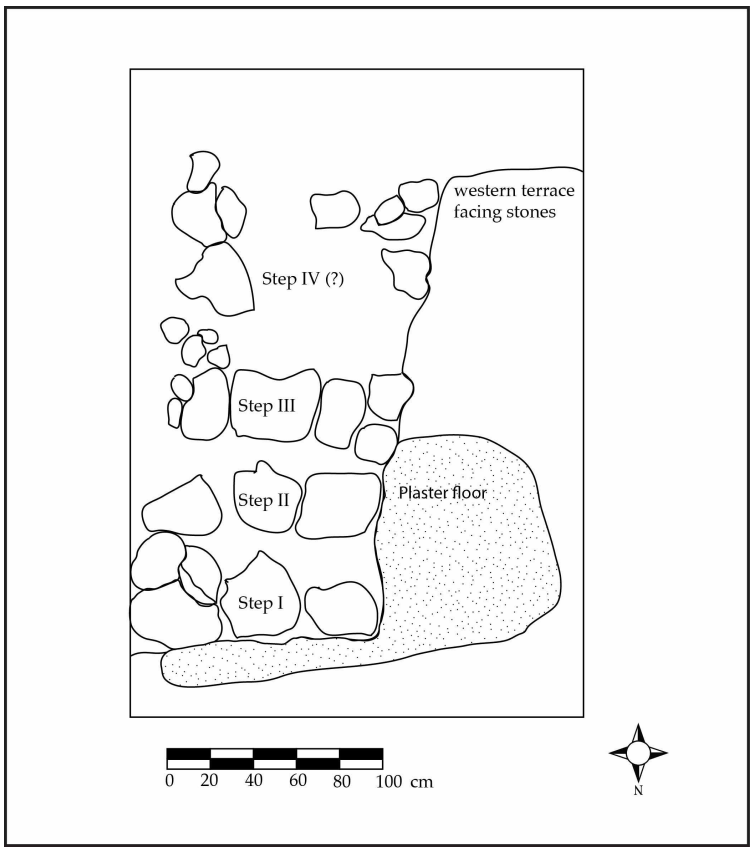

Figure 5.55. Northern façade of Structure 13, stairs and western terrace.

Structure 14—Suboperations X, Z, and Looter's Trench

Suboperation X, originally a 1 x 2 m unit (east-west/north-south), was placed at the base of Structure 14 (Figure 5.56) to explore the axial staircase and determine the dimensions and, most importantly, the function of the building. The unit was ultimately expanded to 2.5 m east-west and 3 m north-south in order to determine the extent of the staircase. The expansion revealed that the staircase was likely an outset staircase that was approximately two meters in length (east to west). The first three steps were in excellent condition, while the fourth was poorly preserved. The cut stones used in first two steps were particularly large and of high quality, the largest measuring 78 cm in length, 32 cm in width and 27 cm in height (Figures 5.57 and 5.58).

The stone quality and size are very distinct compared to what has been encountered in the other buildings, indicating the importance of this building. For example, the cut stones used for steps 3 and 4 were similar in size and poor material quality as observed in Structures 13 and 15. Significant amounts of modeled stucco painted with red pigment were recovered, indicating that this structure was also elaborately decorated. Large amounts of ceramics were recovered at the base of the staircase. Excavations to the summit of the building were terminated due to a large tree in the center of the building and efforts shifted to vertical excavations at the base of the building.

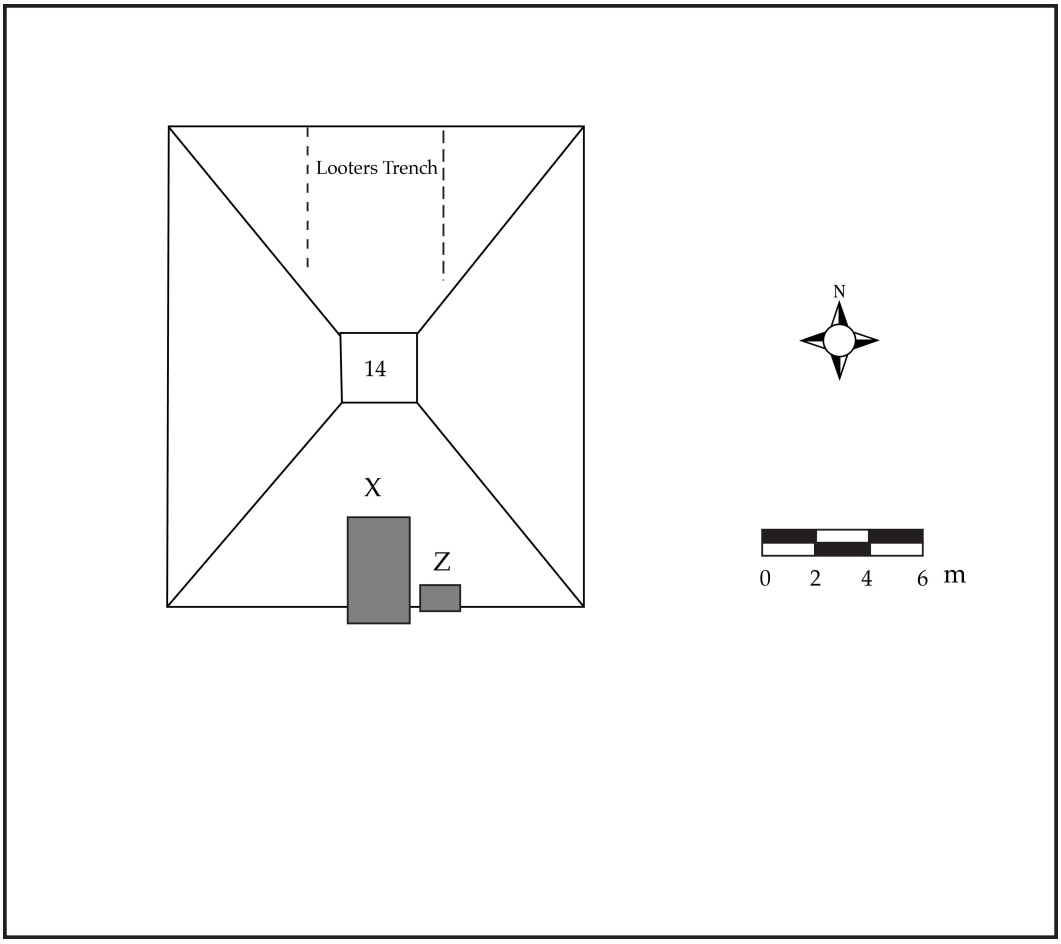

Figure 5.56. Structure 14, excavations and looter's trench.

Figure 5.57. Southern façade of Structure 14.

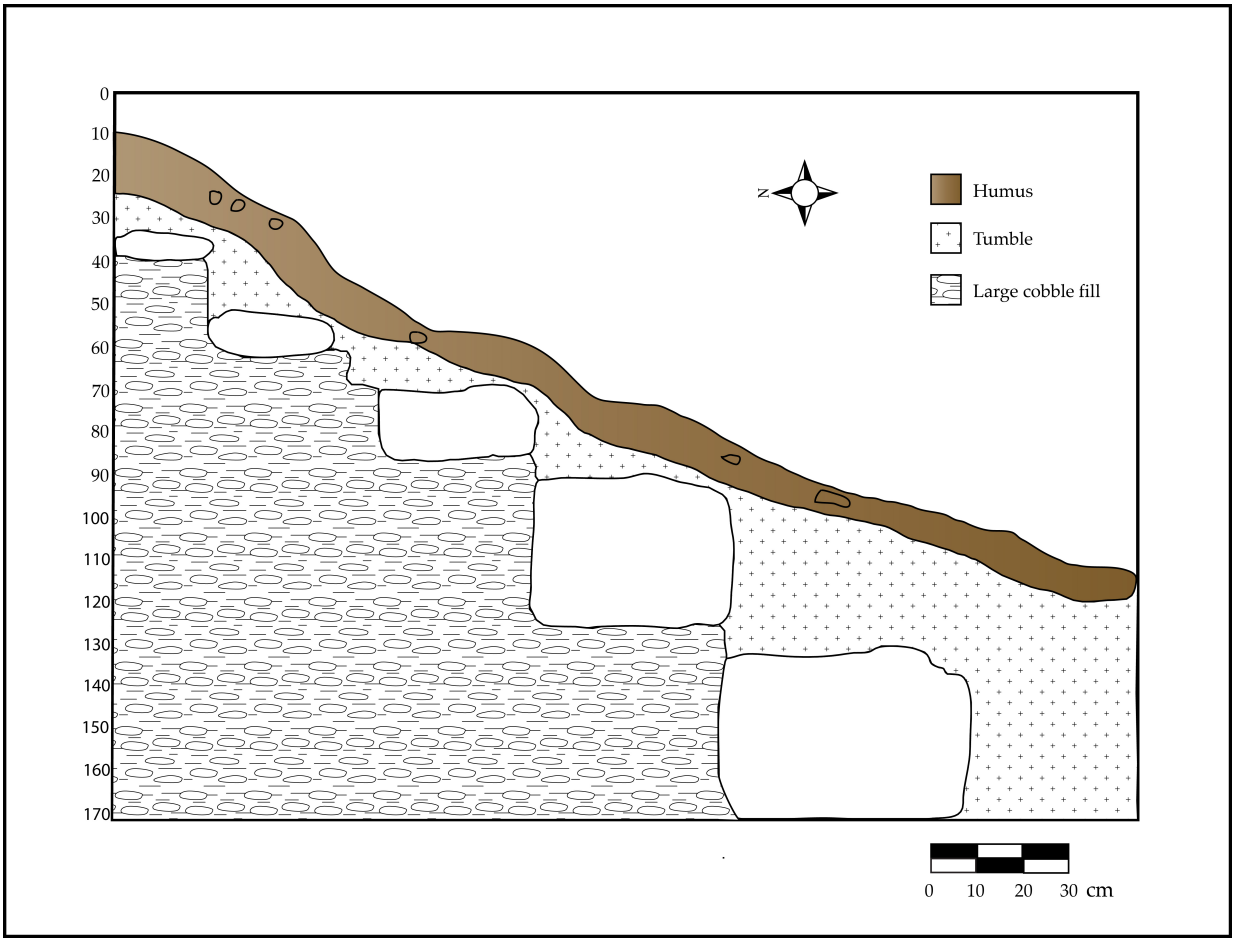

Figure 5.58. Profile of Structure 14's outset staircase.

Vertical excavations, approximately 1.60 m below the surface, at the base of the first step were carried out in order to determine the construction episodes at the north end of the plaza and to compare them to the construction episodes encountered in the south end. Four plaster floor levels were penetrated, and the first three floors encountered date to the Late/Terminal Classic period based on the ceramic analysis (Figure 5.59). The forth floor dates to the Early Classic period also dated with ceramic material. The first

plaster floor corresponds with the first step, and was the more than likely part of the last paving episode encountered throughout the plaza area. The remaining two plaster floors extend beneath the structure indicating that the structure was built upon them.

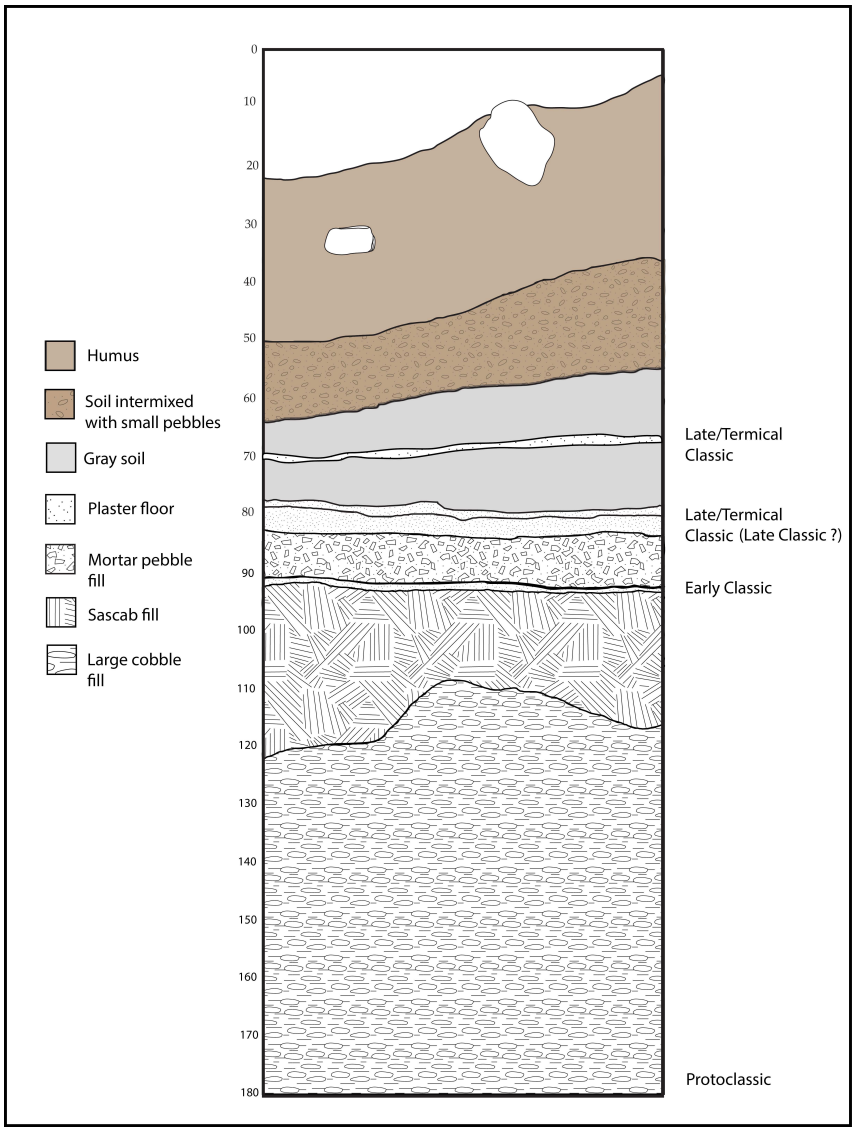

Figure 5.59. Western profile of Suboperation X, Structure 14.

The construction beneath the Early Classic floor consisted of a substantial layer of sascab mortar followed by large cobble fill. The four floors encountered in this unit correlate with the floors in excavated in Unit N (Figures 5.101). Excavations did not reach bedrock due to time constraints and a burial, therefore it is not known if an earlier floor(s) perhaps dating to the Late Preclassic exists in this region of the plaza. The small number of floors (N=4) in Suboperation X presents a much different scenario than what was encountered in the southern end of the plaza where at least nine plaster floors with multiple refurbishments were encountered (Figure 5.21). These differences in construction are most likely due to the fact that earlier versions of the courtyard were profoundly different from what is visible today.

Figure 5.60. *In situ* monument fragment, Suboperation X.

Figure 5.61. Monument fragment, Suboperation X.

Two relevant small finds, a vessel spout fragment and a piece of slate, the latter most likely from the Maya Mountains, date to the Early Classic Period. The small piece of slate is one of the few exotic artifacts located within the Los Pisos Courtyard to date (Figure 6.47). The altar or stelae fragment located directly at the base of the staircase beneath the fourth plaster floor dates to the Early Classic period (Figures 5.60 and 5.61). The presence of an altar is an attribute typically associated with shrine/temple structures.

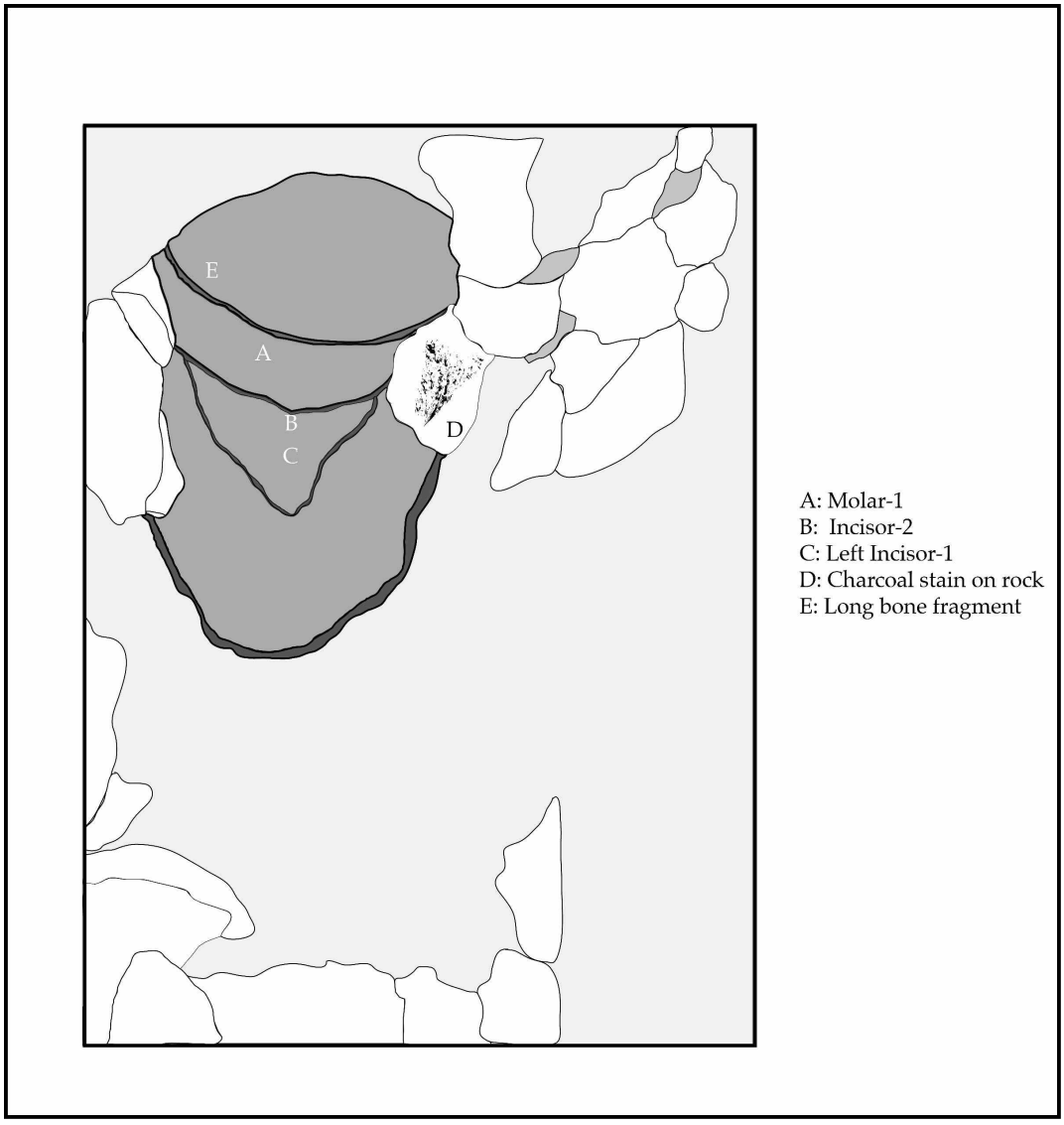

Figure 5.62. Burial 2, Suboperation X.

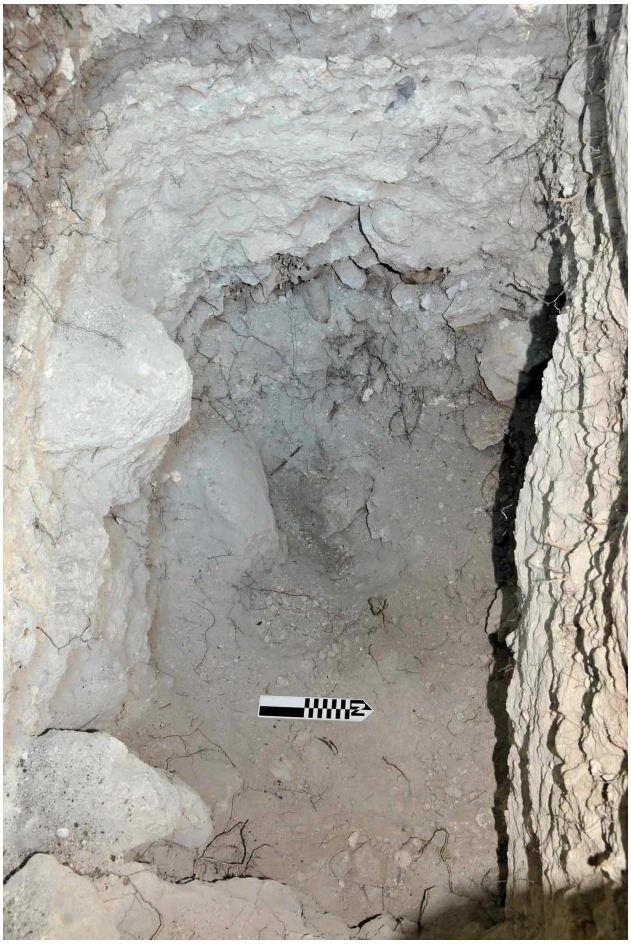

Figure 5.63. Ash and burning activity associated with Burial 2.

Within the mortar and cobble construction fill, approximately 160 cm below the present ground surface, three human teeth and a long bone fragments were found in ashy soil, indicating that that an interment burning ritual took place *in situ* (Figures 5.62, 5.63, 5.64). The presence of teeth is suggestive of a primary burial (Figure 5.65). The remainder of the burial is under the southern façade of the structure, beyond the limits of the subop. A piece of carbonized wood associated with the human remains yielded a an

uncalibrated radiocarbon age of 1890±40 B.P., with a 2σ calibrated age range of A.D. 20 to 220—the Protoclassic period (see Table 6.14). Time constraints limited excavations of the burial, so the condition or other osteological data (sex, age, position) relating to the burial are not known.

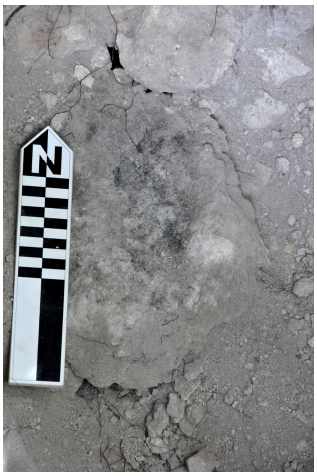

Figure 5.64. Charcoal and burning activity associated with Burial 2.

Figure 5.65. Molar 1, Burial 2.

Suboperation Z was a 1.5 x 1 m unit (north-south/east-west) placed at the southeastern corner of Structure 14 (east of Suboperation X). This unit was initiated to locate the corner of the building; however, visible architecture was not encountered. It appears that the corner of the building was much further back due to the nature of outset staircases, thus excavations were terminated after two lots.

A looter's trench was located on the northern façade of the Structure 14. This trench provided invaluable information that would otherwise not have been obtained. Nevertheless the looter's trench savaged the entire building, from top to bottom, creating a large cavity (Figures 5.66 and 5.67). The initial construction of the structure was that of a terraced platform (Str. 14 Sub-1), perhaps a ritual performance platform, with a terrace that was more than 4 m in length north-south (Figure 5.68). The terrace was purposely infilled with a gray mortar, and it is not known if this was carried out during the construction of a two-room superstructure discussed below, or if this was the last renovation to the structure. The gray mortar is of very poor quality and is typically associated with the Terminal Classic period (Estella Weiss-Krejci, personal communication 2010). The building may have been covered up as a way to mark the termination of the courtyard group or the building itself, or perhaps the two-room structure and the terrace may have been infilled very late in time to create a considerably higher platform during the Terminal Classic period.

Figure 5.66. View of looter's trench, northern façade of Structure 14.

Figure 5.67. Inside the looter's trench, northern façade of Structure 14.

Two well-preserved plaster floors, each approximately 6 cm thick, were visible in the profile, indicating that the platform was renovated at least once during its existence (Figure 5.68). Samples of both floors were taken for plaster chemical analysis (see Chapter 6). A step is present on the north end of the platform (Figure 5.69). The core of the building consisted of both wet and dry construction fill; approximately 50 cm of wet fill lies over 1.5 m of large dry boulder fill. The dry fill was not completely exposed in the looters trench; thus, the measurement provided is based on what was visible.

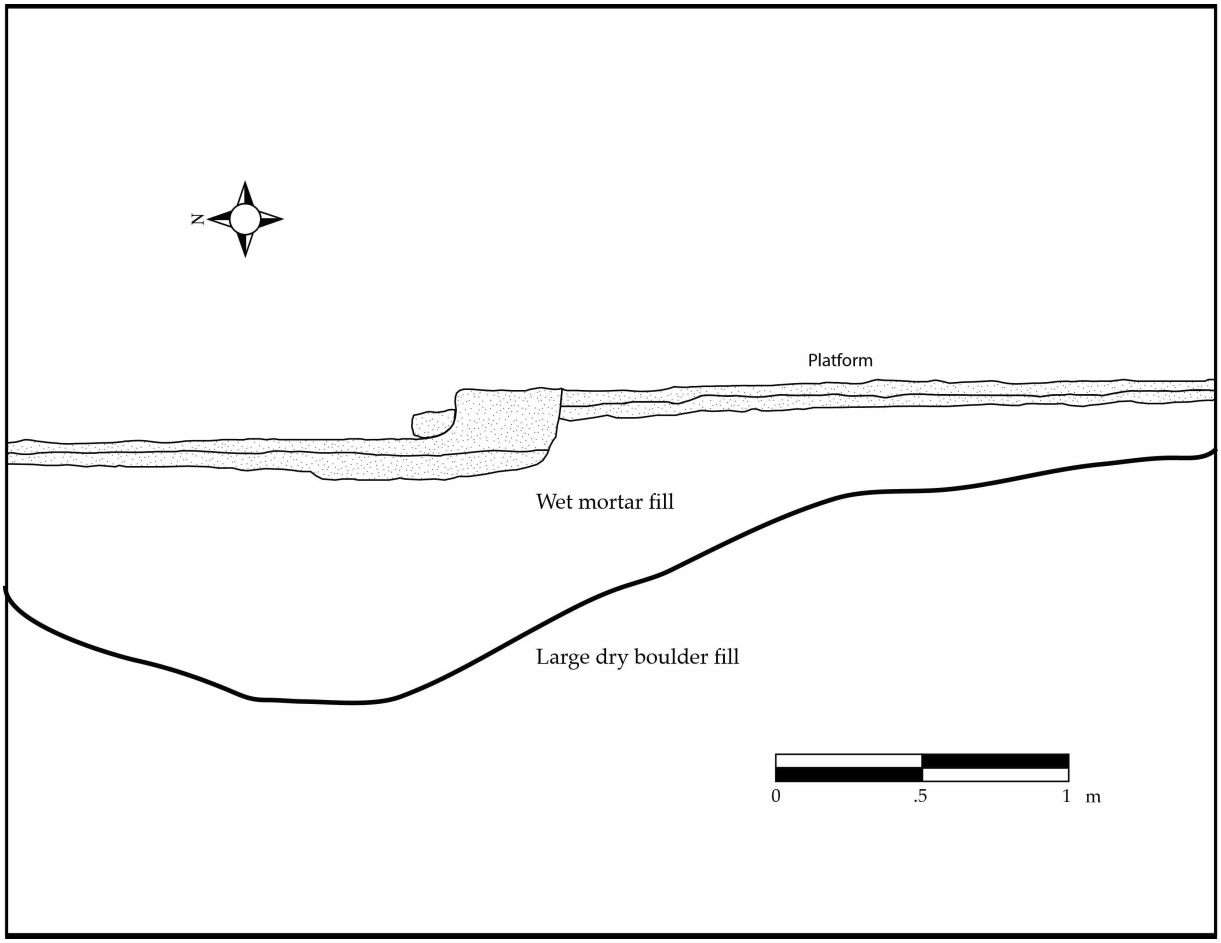

Figure 5.68. Structure 14 Sub-1, Platform.

Figure 5.69. Step leading from terrace to platform, Structure 14 Sub-1.

The two-room superstructure constructed on the platform substructure was in fairly good condition considering the damage from looting. The floor of the western room was completely gutted out; but a section of the eastern room floor was still intact. The eastern portion of the room that survived the looting appeared to be purposely infilled, making it too dangerous to collect plaster floor samples for chemical analysis (Figures 5.70 and 5.71). It is not clear if this infilling is collapse debris or if the room was purposely infilled. The floor level of the western room was completely destroyed and it is not known what the looters made off with and desecrated. Evidence of floor refurbishment was confirmed within the eastern room (Figure 5.71). This single, thin

layer of plaster covered the platform surface, and may indicate that the structure was minimally used before the courtyard was abandoned. A large piece (45 x 25 cm) of red-painted plaster floor was located within the looter's trench (Figure 5.72). This floor was very thick and was probably part of the original platform surface, indicating that the platform was painted red.

Figure 5.70. Collapsed eastern room, Superstructure 14.

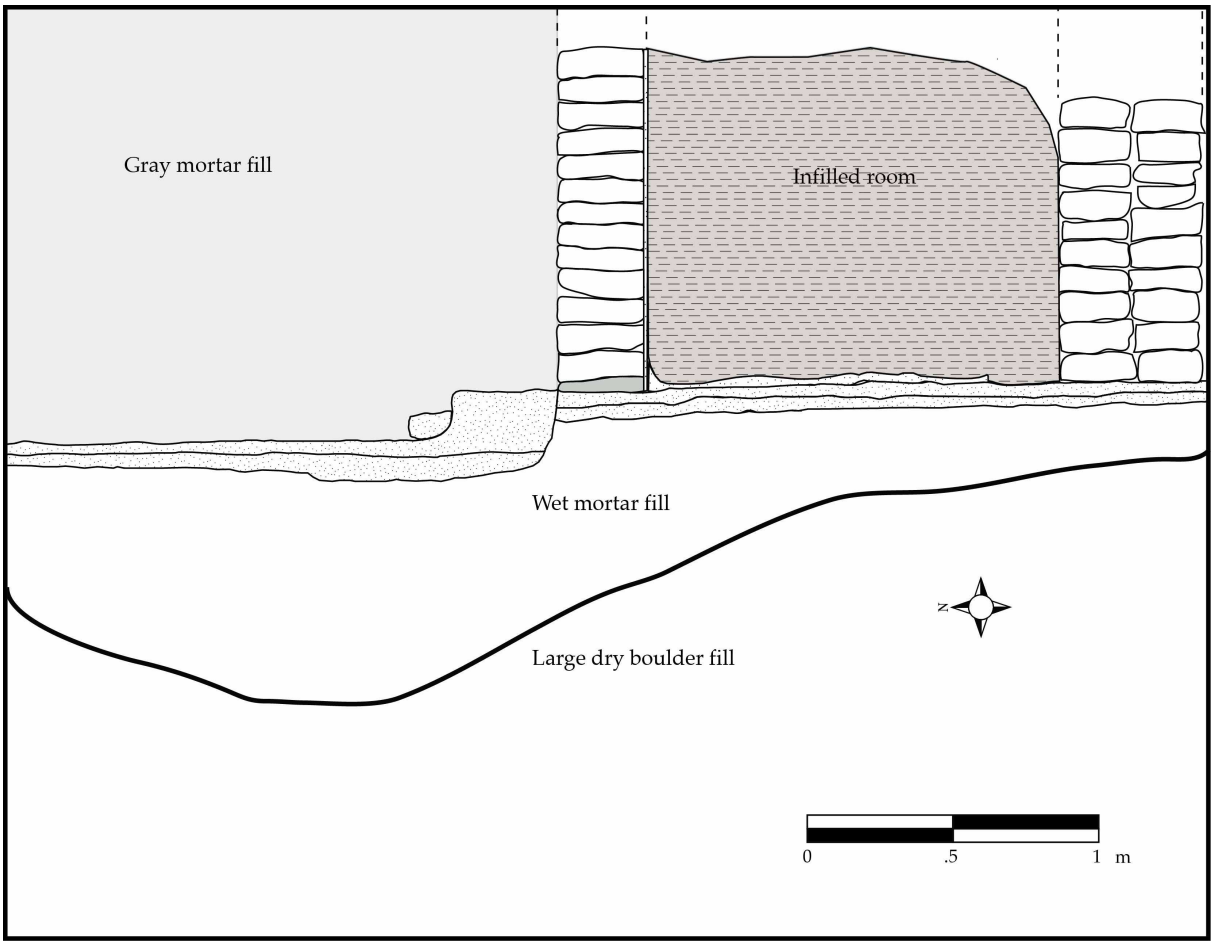

Figure 5.71. Profile of eastern room, Superstructure 14.

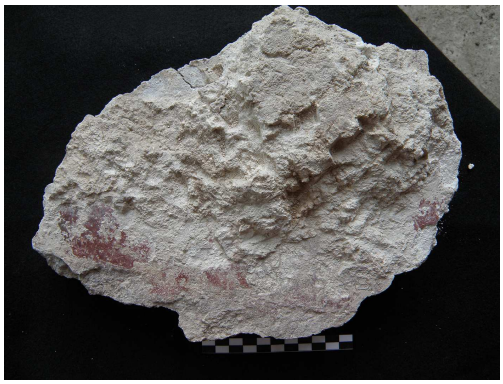

Figure 5.72. Painted plaster floor from platform, Structure 14 Sub-1.

There were remaining wall remnants on the southern, western and part of the northern façade of the superstructure, but the eastern wall was not exposed. A spine wall dividing the two rooms lacked an entrance, suggesting that the western room may have been sealed off in antiquity. Perhaps the sealed off room served as a burial chamber, similar to Holmul Building B (burial structure) Group II, located at the north end of the group (Merwin and Vaillant 1932). Although the eastern wall was not visible, it is assumed that the main entrance into the building was located on the eastern façade. An entrance was certainly not visible on the southern, western or northern façade of the building.

The layout of the two rooms was mapped (Figure 5.73). The western room measured 1.25 m long by 1.30 m wide, making the interior space 1.625 m^2. Only three quarters of the eastern room was visible for mapping; it measured approximately 1.02 m in length by 1.30 m in width. I suspect that the eastern room was similar in size to the western room. The wall separating the rooms was 18 cm in thickness. The northern wall

appears to be a two-course masonry construction, but only one-course survived and is approximately 31 cm thick, while the southern wall was a two-course stone construction measuring 54 cm in thickness. Although it was not entirely clear if this structure had a corbel vault, the walls were thick enough to support such an architectonic element (see Satterthwaite 1935). Because most of the plastered floor surfaces were destroyed, it is not known if the rooms contained built-in benches or altars. Built-in niches were not observed in preserved walls.

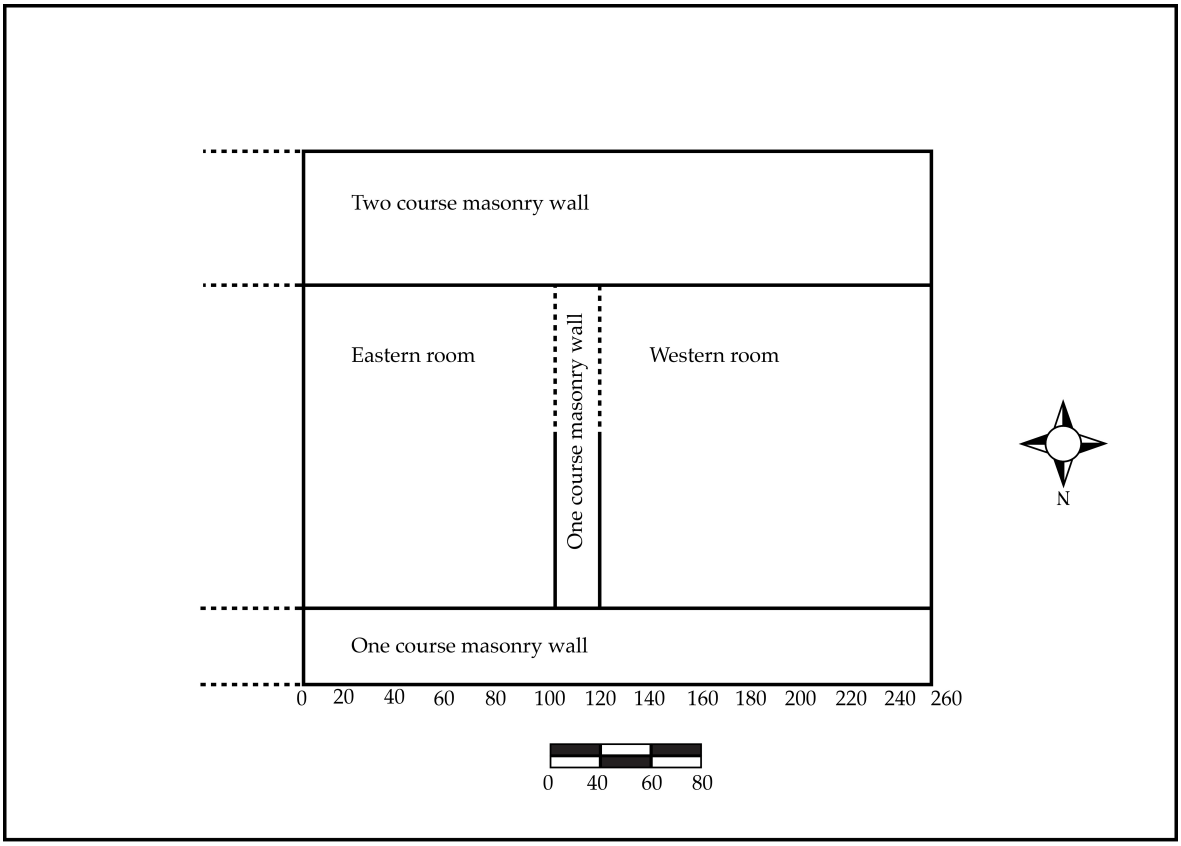

Figure 5.73. Plan map of Superstructure 14.

A burial was placed under the staircase on the southern façade of the building, but outside the two-room superstructure. The last inhabitants of the courtyard cut through the platform plaster floors to construct a stuccoed-lined pit that measured approximately 45 cm in width at the opening, 25 cm at the base and approximately 28 cm in height (Figure 5.74 and 5.75). A dark organic layer 3 cm in thickness was visible at the base of the pit; most likely some type of organic remains such as plants or food stuff placed there as an offering. There was evidence of human bone on the floor of the looters trench probably caused by rodent bioturbation. The presence of small bones of the hand and foot is indicative of a primary interment. The burial was not excavated due to the dangerous overhang left by the looters.

Figure 5.74. Burial 3, Structure 14 (looter's trench).

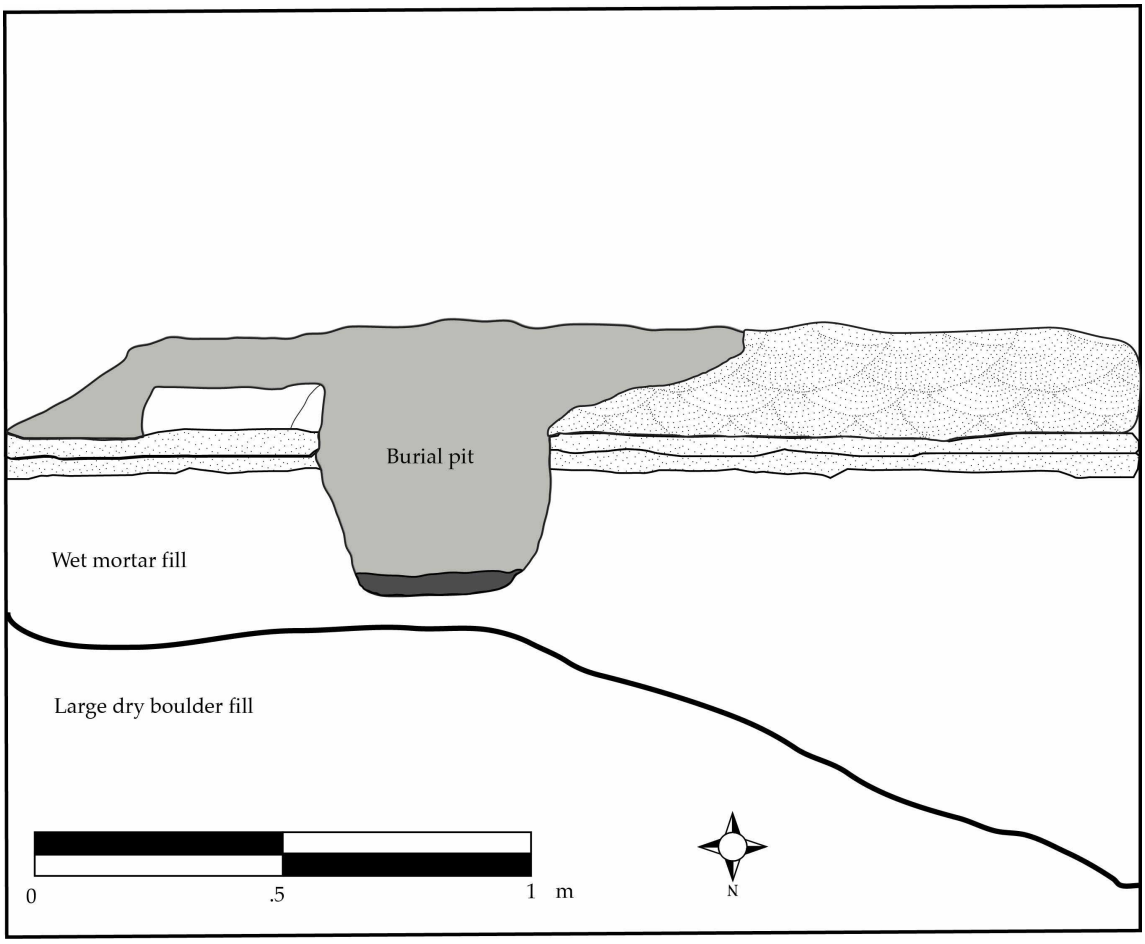

Figure 5.75. Burial 3 profile, Structure 14 (looter's trench).

Bone from the burial pit was collected for radiocarbon dating. Although uncalibrated radiocarbon age of 1300±43 B.P., with a 2σ calibrated age range of A.D. 647-856 (Table 6.13) lies between the early Late and Terminal Classic periods, its intrusive nature (though the plaster floors and possibly the last staircase) makes it appear that the individual was interred sometime after the construction of the two room superstructure during the Late/Terminal Classic period. The individual was an older

adult, approximately 40-60 years of age (Lauri Martin, personal communication 2010). It is doubtful that sex can be determined from the few small bones and fragments that were collected. Stable isotope data indicate a diet rich in protein and maize for this individual (See Chapter 6). Soil and plaster samples from the burial pit were taken for chemical analysis and are discussed in the subsequent chapter.

Structure 15—Suboperations G, K, O, Q, V, Y, AA, AC, AD and AE

Located on the western edge of the courtyard, Structure 15 is the second largest of the four structures (Figure 5.76). Structure 15 was selected for excavation to investigate the architectural construction phases and compare them with Strs. 13 and 14. Additionally, these excavations concentrated on the dimensions and layout of the superstructure, and associated material remains for the determination of possible function(s).

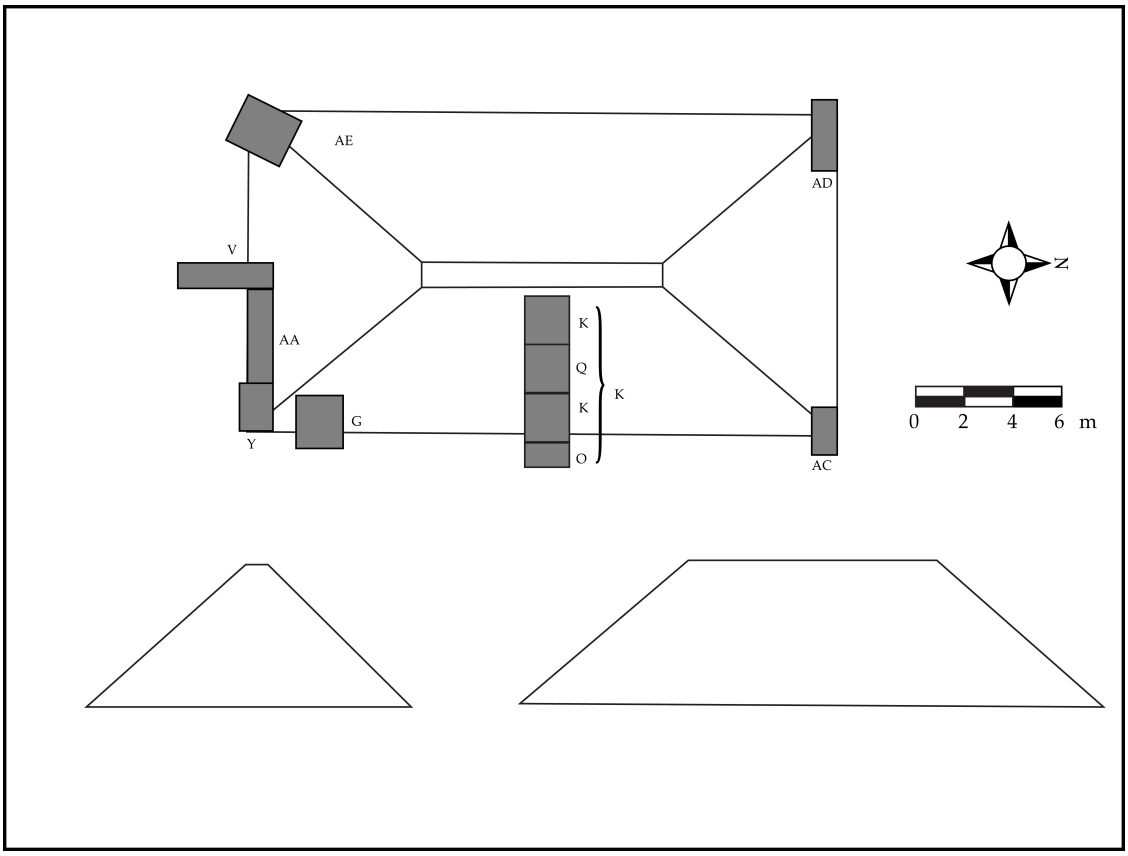

Figure 5.76. Structure 15 Suboperation excavations.

Suboperation G consisted of 2 x 2.20 m (north-south and east-west) unit placed on the southeastern façade of Structure 15. Excavations in this suboperation did not reveal architectural alignments (Figure 5.77). Large cut stones were present below the humus layer. However, they were not positioned in any identifiable alignment. Perhaps the architecture was damaged as a result of looting activity and/or tree falls, evidenced by a large depression on the midline of the building's southeastern façade. A small remnant of a plaster floor was located on the southern edge of the suboperation; however, it appears thicker and of better quality when compared to the last plaster floor encountered

in other units throughout the courtyard area. This may have been an earlier plaster floor under Str. 15. Ceramic and lithic artifacts, consisting of obsidian bladelets and chert debitage, were recovered in small quantities. The ceramic data suggests a Late/Terminal Classic date for excavated materials.

Figure 5.77. Suboperation G, eastern façade of Structure 15.

Suboperation K initially measured 2 x 2 m and was placed on the axis of the eastern façade of Structure 15 during the 2008 field season. The first two lots of this suboperation consisted mostly of collapse debris and humus. The axial stair alignment exposed four, or possibly five, poorly preserved steps (Figures 5.78 and 5.79). A remnant of a plaster floor was located beneath the second step alignment at the base of building (Figure 5.80). This plaster floor was of much better quality than the floors

encountered in other areas of the plaza. This may have been an earlier plaster floor that was underneath Str. 15.

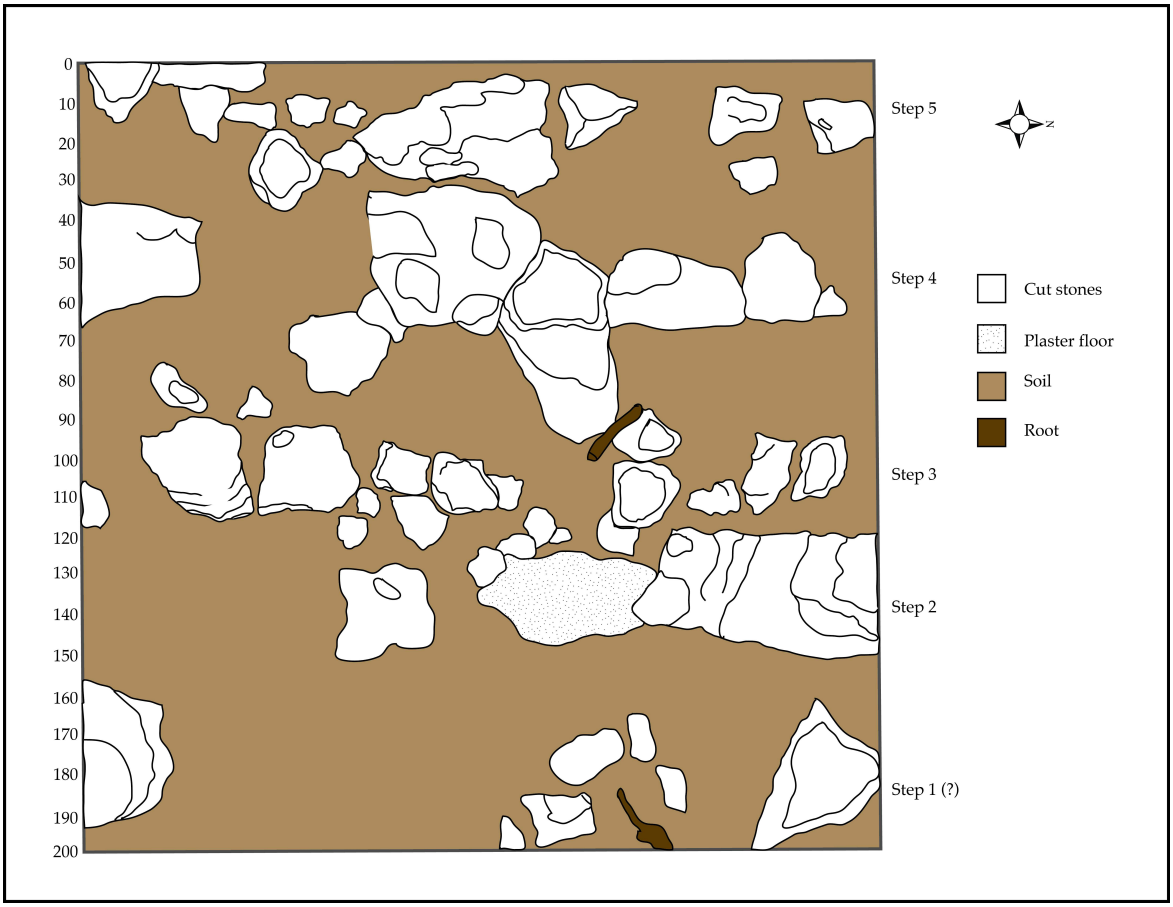

Figure 5.78. Plan map of eastern façade of axial staircase of Structure 15.

High concentrations of ceramics, dating to the Late/Terminal Classic period were recovered from Suboperation K. A fragment of a small incensario of a human face with appliqué was recovered from the base of the structure (Figure 6.46). Three intact obsidian blades visibly stacked one above the other were recovered from the southern

central region of the unit (Figure 6.33). The close grouping of items, not including burials, was initially defined as a *cache* by Coe (1959:77). It is presumed that the blades were bundled together in some kind of perishable textile that held them as a single cache offering, as was the case for the site of Cuello, and also the way in which contemporary Lacandon Maya curate glass bloodletters (Hammond 1991b: 61; Hayden and Deal 1989). These blades may have served as bloodletting instruments, as is depicted in Maya iconography and epigraphy (Stuart 2005). These findings suggest that termination rituals took place prior to the final abandonment of the courtyard.

Figure 5.79. Axial staircase alignments, eastern façade of Structure 15.

Due to the heavily eroded Late/Terminal Classic construction phase, excavations proceeded to investigate if an earlier construction phase could be correlated with the plaster floor observed below the second step alignment (Figures 5.78 and 5.80). The consolidation of Suboperations K, O and Q took place within Lot 4, making Suboperation K a 4.5 x 2 m (east-west and north-south) trench (Figures 5.78 and 5.80). From this point forward, this expansion and consolidation will be referred to as Suboperation K-1. Suboperations O and Q are discussed below followed by a discussion of Suboperation K-1.

Suboperation O was a 1 x 1 m unit directly east of Suboperation K at the base of Structure 15. This suboperation was placed to further expose a plaster floor and to further expand Suboperation K to the east. The plaster floor in this unit appears to match what has been interpreted as the last paving episode in the courtyard. Extremely high concentrations of ceramics were recovered from all three lots; however the highest concentrations came from Lot 1. There was also obsidian bladelets and lithic debitage recovered from Lots 2 and 3. The high concentrations of ceramics may represent what has been termed a "special deposit." These special deposits are thought to represent termination ritual activity. However, this deposit does not contain the same artifact volume that is present in other "special deposits" or ritual termination deposits that have been reported throughout the region (Clayton *et al.* 2005; Houk 2000). The deposit may simply be terminus remains of the Late/Terminal Classic period.

Figure 5.80. Heavily eroded eastern axial staircase, Structure 15.

Suboperation Q was a 2 x 2 m unit set directly west of Suboperation K (Lot 3) to further expand and expose the axial staircase. The first lot consisted of the humus layer mixed in with large cut stone collapse debris. Very few ceramics and lithics were recovered from the first two lots of the suboperation. High quantities of large ceramics sherds, lithic debitage and an obsidian bladelet were recovered in Lot 3. Two alignments were exposed in the third lot, however they were not well preserved. The alignment on the western border of the unit was best preserved, but not excavated because it was just

outside the unit boundaries, while the alignment in the center of the unit was barely recognizable.

Suboperation K-1 was bisected (north-south) in order to preserve the four step alignments in the northern half of the unit. The southern half, now a 4.5 m x 1 m (east-west and north-south) unit, was designated suboperation K-1, Lot 5. Using the plaster floor as a guide, the remaining collapse debris and fill belonging to the last construction phase were removed. The fill consisted of significantly large (40 x 29 x 14 to 41 x 40 x 21 cm) amorphous limestone boulders, typical of Late/Terminal Classic construction fill. The plaster floor was pursued; however the floor terminated before an earlier construction phase was located. Perhaps the last construction phase of this structure was quite significant, as has been noted for La Milpa during the Late/Terminal Classic period, and a large amount of construction fill overlies the earlier construction phase.

The 4.5 x 2 m trench was backfilled (Suboperation K-1). However, during the 2009 season, a second attempt was made to investigate the eastern façade of Structure 15. Suboperation K-1 was expanded 2 x 2 m towards the summit of the building. A significant amount of very large collapse debris, possibly from the superstructure construction, was encountered within the humus. Excavations in Suboperation K-1, lot 6 revealed a second alignment (Figures 5.81 and 5.82) directly above the alignment initially observed on the western boarder of Suboperation Q, Lot 3. The location of the alignment (near the summit of the building) and its appearance has led to the conclusion that a collapsed element (wall?) of the superstructure had been reached.

A significant amount of ceramics (Late/Terminal Classic) was recovered from these excavations, including a very large rim sherd, perhaps belonging to a large olla. Such a concentration of ceramic artifact was not observed on Strs. 13 or 14, suggesting that these remains were perhaps artifacts associated with activities performed in the building.

Figure 5.81. Eastern façade wall alignment near summit of Structure 15.

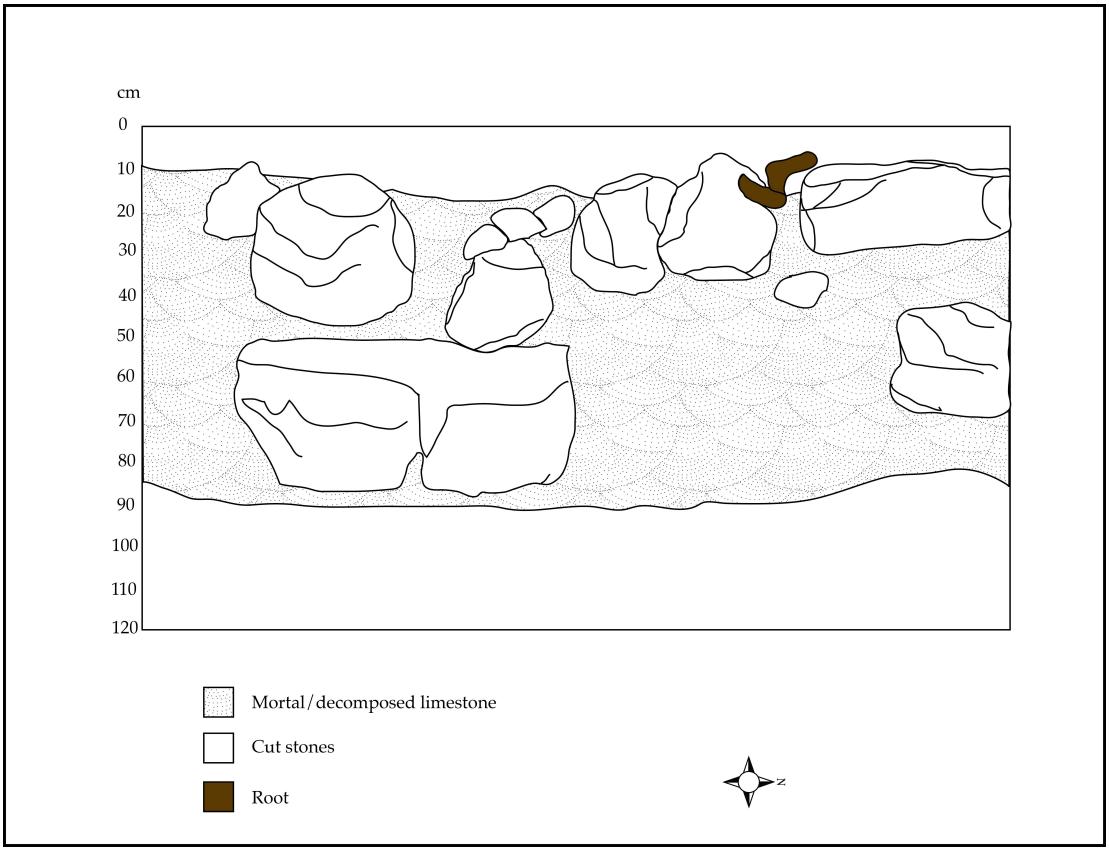

Figure 5.82. Possible substructure wall alignment, eastern façade of Structure 15.

Suboperations V and AA were undertaken on the southern façade of the building. This facade of the building showed promising architectural preservation. *Suboperation V* was initially a 1 x 2 m (east-west/north-south) unit placed on the axial base of the southern façade. A well preserved plaster floor was exposed. It appears to be the last paved surface in the Los Pisos Courtyard. This floor matches the plaster floor exposed in western corner of Structure 13 (Suboperation U). Unit V was extended an additional 2 m north to further explore and expose a facing stone alignment that meets the plaster floor (Figure 5.83).

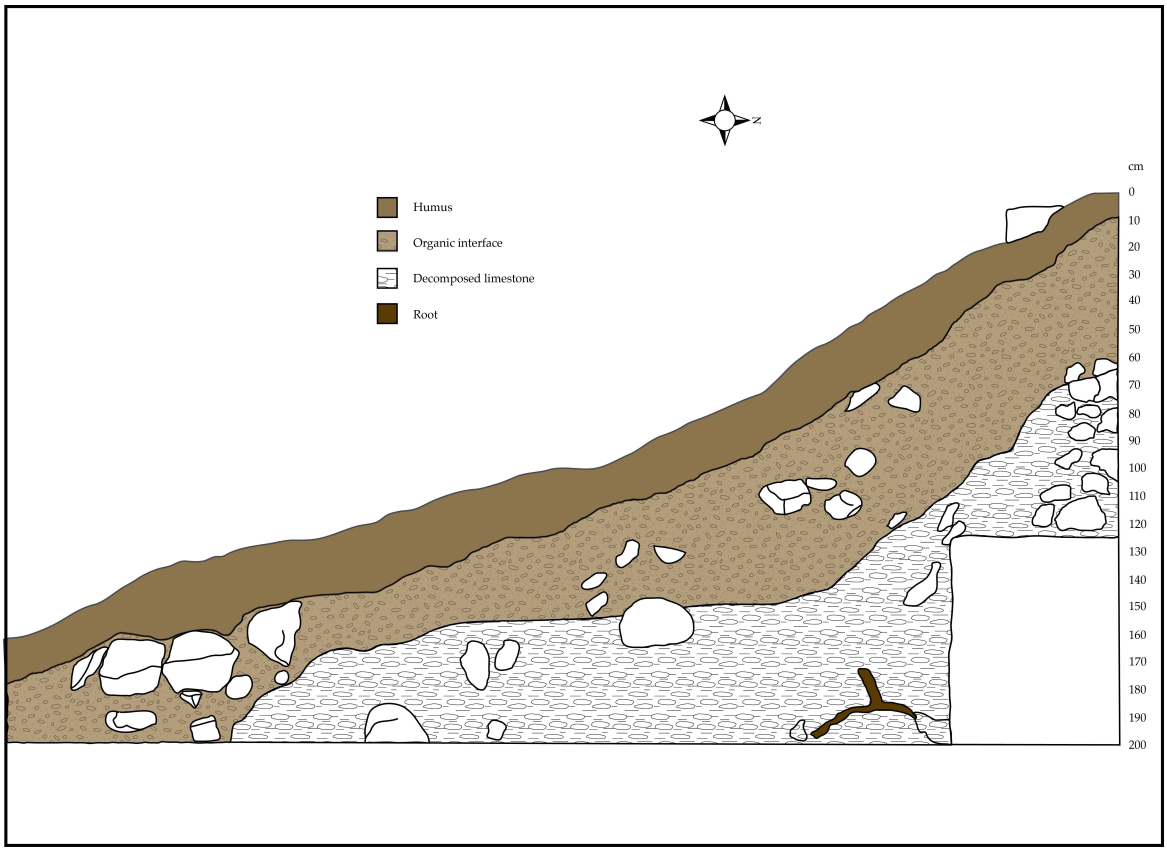

Figure 5.83. Profile of southern façade of Structure 15 (Suboperation V).

As excavations continued to expose the architectural feature, it became clear that the wall was part of a side outset that was attached to the southern façade of the building platform (Figure 5.84). The outset wall is 75 cm in height and has a surface area measuring 60 cm in width. A second facing stone alignment perpendicular to the outset surface was exposed. Based on its location; it appears to be the facing stones of the platform. This is a typical construction design, e.g., Piedras Negras Str. K-5, but on a much smaller scale.

Figure 5.84. Southern façade of Structure 15.

Suboperation AA, a 1 x 4 m unit (north-south/east-west), was placed directly to the east of Subop V to further expose the outset surface ledge and the Late/Terminal Classic platform core face. The excavated section of the platform measured 5 m in length (east-west) and 70 cm in height; it aligned with the corner located in Suboperation Y (Figures 5.85 and 5.86). As the outset was further exposed, it appeared to round off and curve inward toward the eastern façade of structure and did not run the entire length of the southern façade to meet the southeast corner of the building. Significant amounts of

large ceramic sherds, particularly from small bowls and jars, were encountered on the surface of the outset.

Figure 5.85. Late/Terminal Classic platform substructure, southern façade and corner of Structure 15.

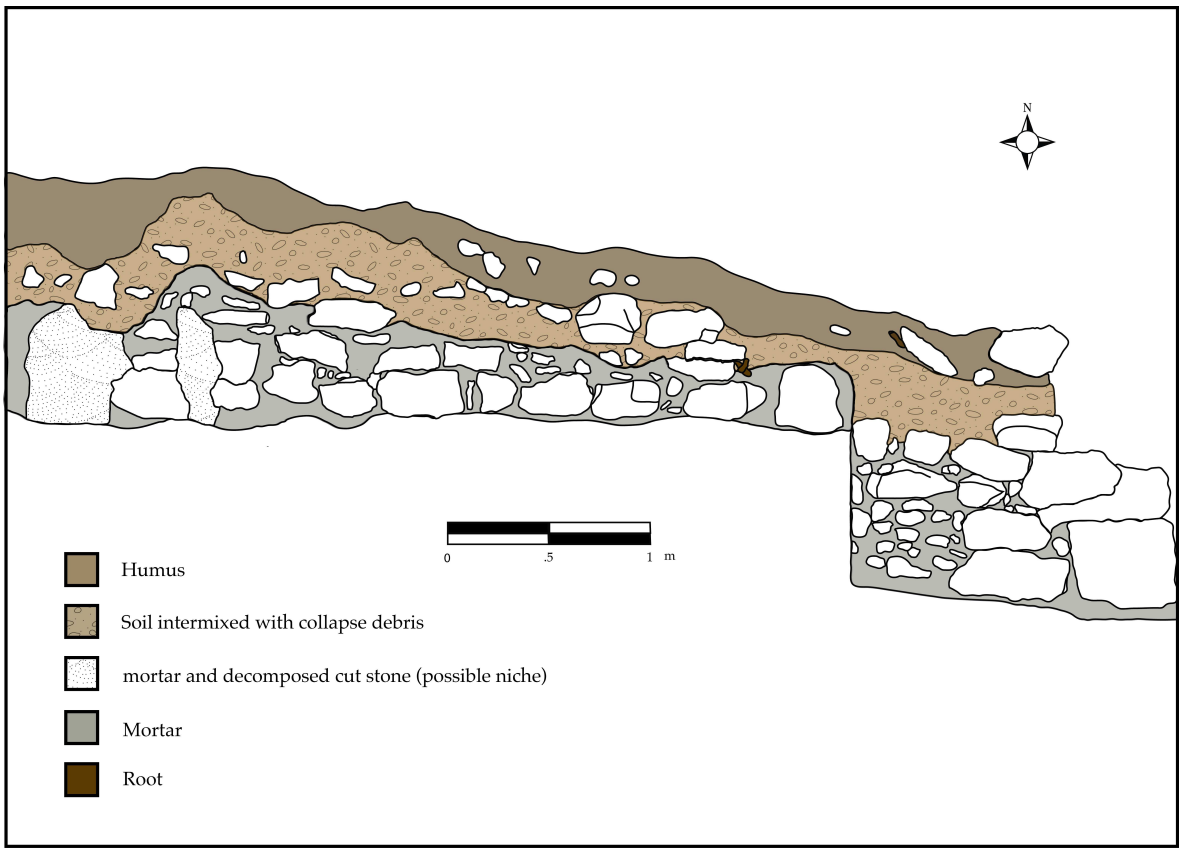

Figure 5.86. Late/Terminal Classic platform substructure, southern façade and corner of Structure 15.

A reconstructible vessel was discovered *in situ* in Suboperation AA—on the outset surface (Figures 5.87 and 5.88). It was almost as if this vessel was left in place while still in use. Based on the form of the vessel, it most likely served as a water storage vessel (Lauren Sullivan, personal communication 2009). There appeared to be a niche constructed into the platform core face at the western edge of the excavation (Figures 5.85 and 5.86); perhaps this surface served as a place for leaving offerings.

Figure 5.87. *In situ* water jar located on the southern façade of Structure 15.

Concentrations of large ceramic sherds, particularly of water storage jars (Tinaja Red type), were also encountered at the eastern end of the unit and southeast corner of the structure (Subop Y). At Los Pisos Courtyard, however, the elites may have been using the water jars as paraphernalia used during rituals that necessitate water (See Craig 2010). At Aguateca (Emery and Aoyama 2007) complete jar vessels, perhaps water jars, were found *in situ* on the floor of the eastern most room entrance of Structure M7-22.

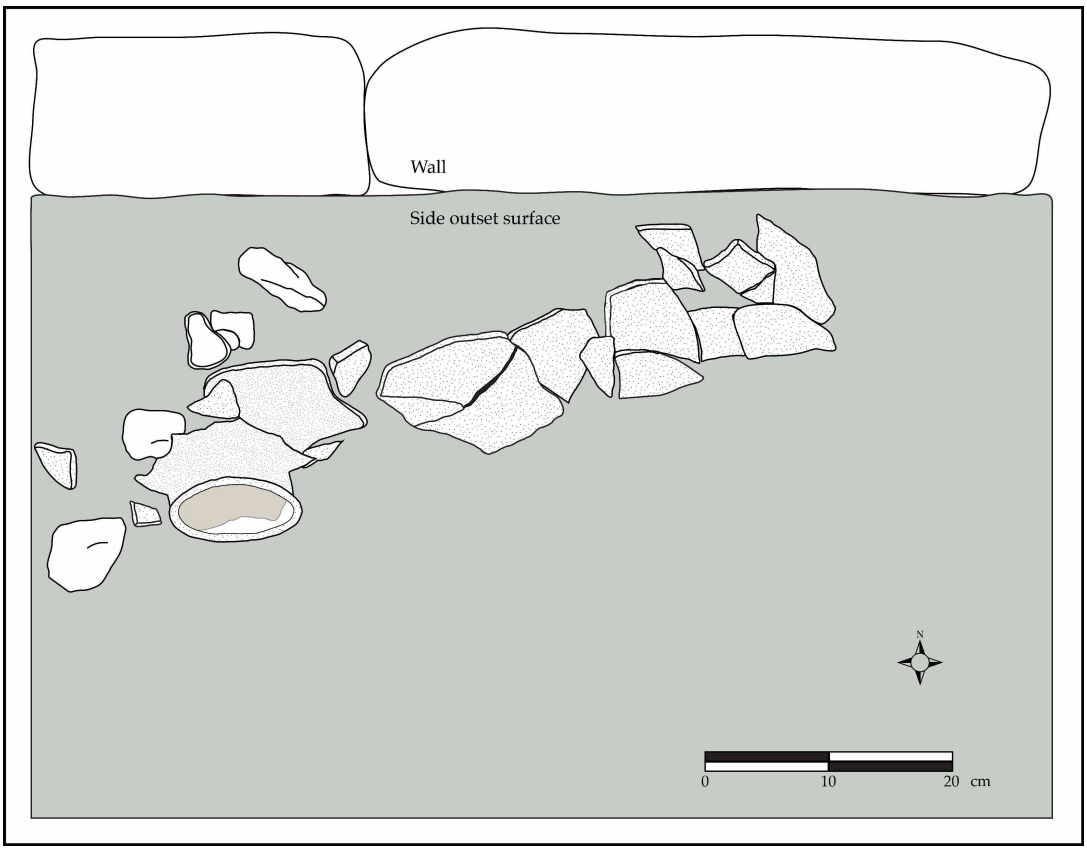

Figure 5.88. *In situ* water jar, located on the southern façade of Structure 15.

Suboperations Y (2 m east/west and 1.5 north/south), *AC* (2 m east/west and 1 m north/south), *AD* (3 m east/west and 1 m north/south), and *AE* (4 m north/south and 2 m east/west) were established to expose the corners in order to better understand the construction program and determine the dimensions of Structure 15. Suboperation AC exposed the northeast corner, and Suboperation AD exposed the northwest corner, while Suboperation Y exposed the southeast corner (Figures 5.89 to 5.92). Molded stucco painted with red pigment was recovered from Suboperations Y, AC, and AE. This

confirms that all three Structures (13, 14 and 15) were elaborately decorated with painted molded stucco.

Figure 5.89. Northeast corner of Structure 15.

Figure 5.90. Northwest corner of Structure 15.

Significant amounts of large reconstructible ceramic sherds, mostly Tinaja Red jars, were found in Suboperation Y where Suboperations Y and AA meet (Figures 5.85 and 5.86). The soil in this region of the structure was gray and an ashy area was present along with the large number ceramic fragments. They appear to be a primary context and perhaps evidence of a termination ritual. The large number of water jar vessels provides evidence for water storage within this space, indicating that water was necessary for day-to-day operations. This deposit may suggest the habitual use of this space, or as previously mentioned these vessels may have been used for rituals that required water.

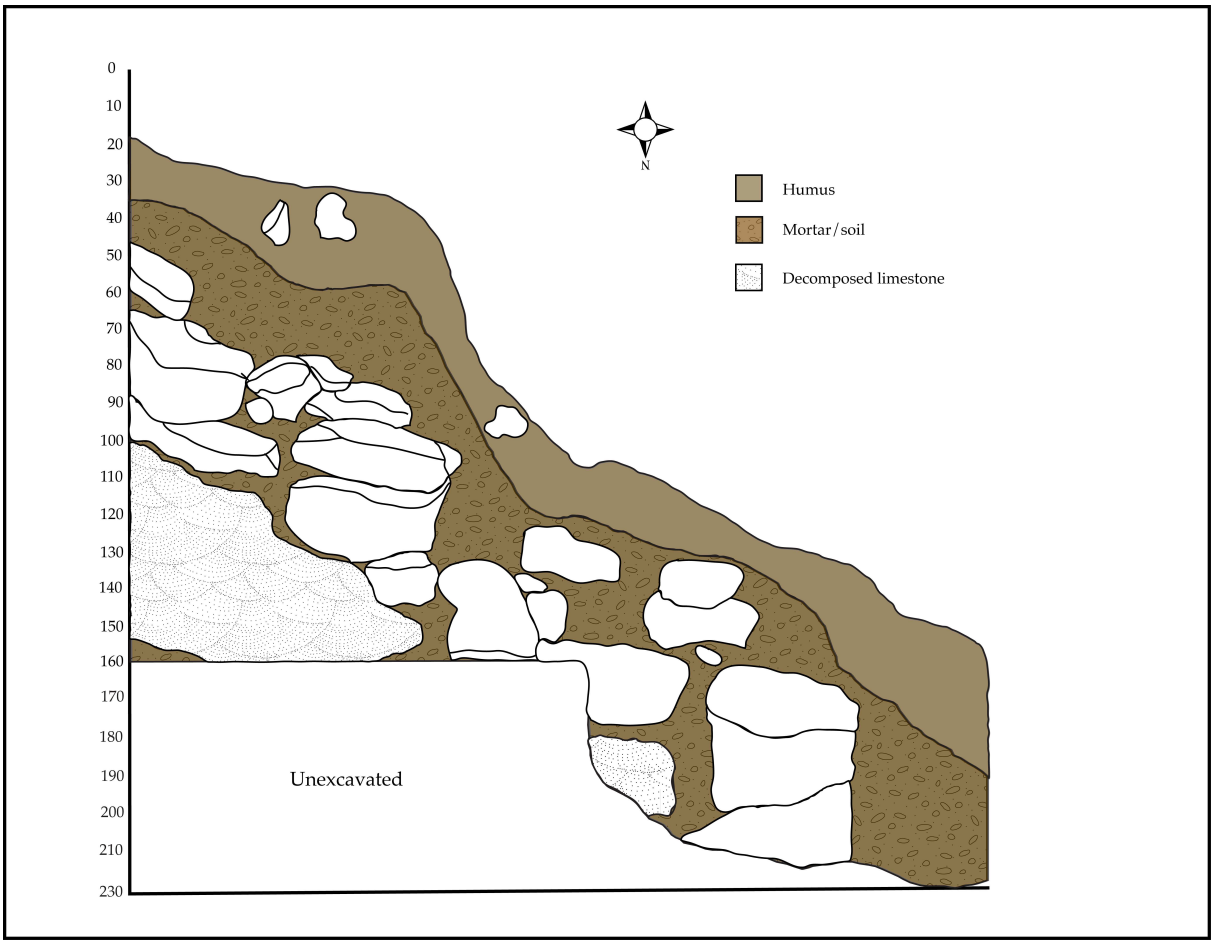

Figure 5.91. Northeast corner and platform facing stones of Structure 15.

Subop AE was placed on the southwest corner of the building. This unit revealed notable data pertaining to the construction program of the building. Excavations exposed the core face of the Late/Terminal Classic period platform and outset present in Suboperations Y, V, and AA. The outset wall on this part of the building was much higher (120 cm) when compared to the outset (75 cm) located in Suboperations V and AA, and perhaps supported an architectural armature (Figures 5.93 and 5.94). Large

quantities of molded stucco were recovered, indicating that this part of the building had monumental sculpture (Figures 6.51-6.55). Additionally, an earlier platform like structure, perhaps dating to the Early Classic period based on ceramic data was also exposed. The height of this platform is not known and only 60 cm of the platform was exposed (Figures 5.95 and 5.96).

Figure 5.92. Southeast corner of Structure 15.

Elaborate Early Classic polychrome ceramics—albeit in fragments, were located in this suboperation. They are associated with Str. 15 Sub 1, indicating an Early Classic construction for this structure. These fragments consist of at least two lids, one with a possible zoomorphic handle (Figure 6.8), and perhaps served as lids for mortuary vessels

(Fred Valdez, Jr., personal communication 2009; Smith 1955). Additional polychrome fragments from other vessels were also recovered (Figure 6.7). The excavation was terminated due to time constraints therefore the context of the Early Classic ceramics is not clear. The preservation and the refitting of some of the fragments may suggest a caching activity; however, this is only a preliminary interpretation.

Figure 5.93. Possible monumental art armature, southwest corner of Structure 15.

Figure 5.94. Southwest corner and outset, southern façade of Structure 15.

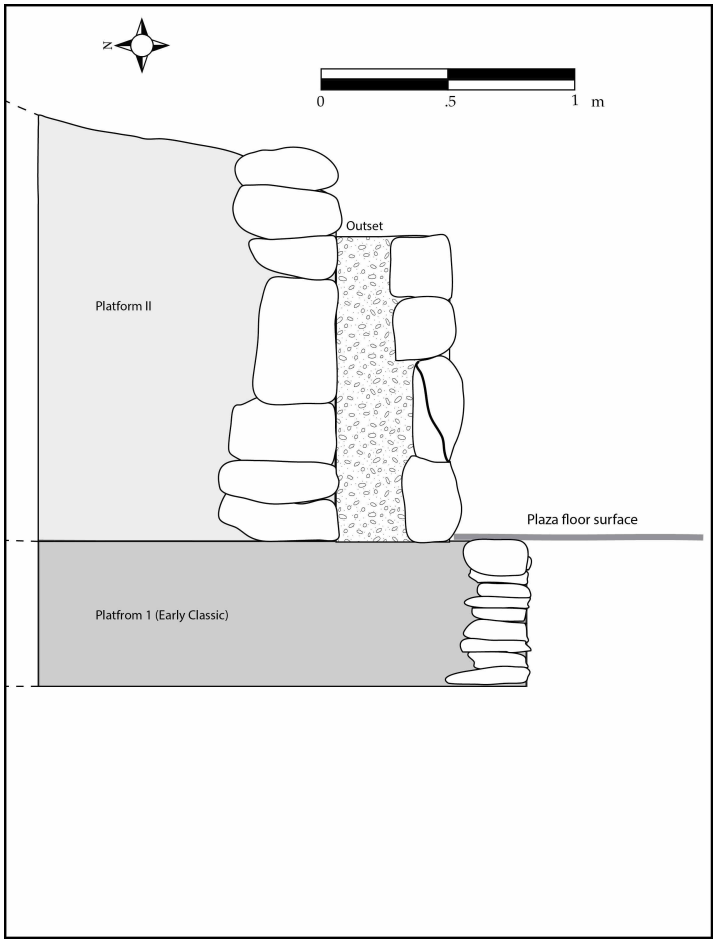

Figure 5.95. Late/Terminal Classic and Early Classic construction, Southwest corner of Structure 15.

Figure 5.96. Late/Terminal Classic and Early Classic construction, southwest corner of Structure 15.

Northwest Area of Courtyard—Suboperations L, N and P

Three suboperations were placed in the northwest region of the courtyard. Suboperation L was undertaken to establish the dimensions of a wall that enclosed the northwest side of the courtyard, and also to determine how the wall fit within the construction program of the courtyard. Suboperations P and N were assigned for establishing how the areas west and east of the wall were used (Figure 5.97).

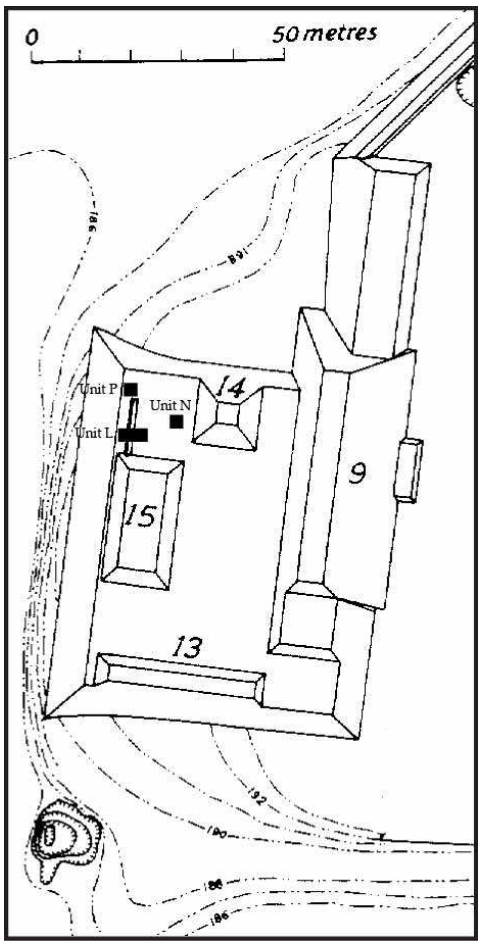

Figure 5.97. Excavations conducted in the northwest region of the Los Pisos Courtyard (From Tourtellot *et al.* 1994).

Suboperation L consisted of a 4 x 2 m (east-west and north-south) unit placed on the southern most section of the wall near the northern façade of Structure 15. Based on the ceramic analysis, the wall is a late addition dating to the Late/Terminal Classic period. The wall measures 1 m wide, 40 cm high and extends 16 m to the north from Structure 15 and 10 m to east toward Structure 14 (Figures 5.98 and 5.99). Although this

feature was not part of an ad hoc construction by any means, it does not resemble the masonry bases for perishable fortifications that Demarest (*et al.* 1997:233-236) documents in the Petexbatun area. There is no indication that this parapet was part of a fortification program, maybe it served more for privacy, or perhaps to support an awning or sun shelter. Significant rock tumble, mostly on the west side due to the incline, had to be removed before the dimensions of the wall could be determined. Based on the amount of rock tumble on the west side, the wall must have been much higher than the present day height. The wall was built upon a plaster floor. However, the floor is better preserved on the western side of the wall; perhaps the rock tumble preserved this part of the floor. The plaster floor appears to be part of the last paving episode in the courtyard.

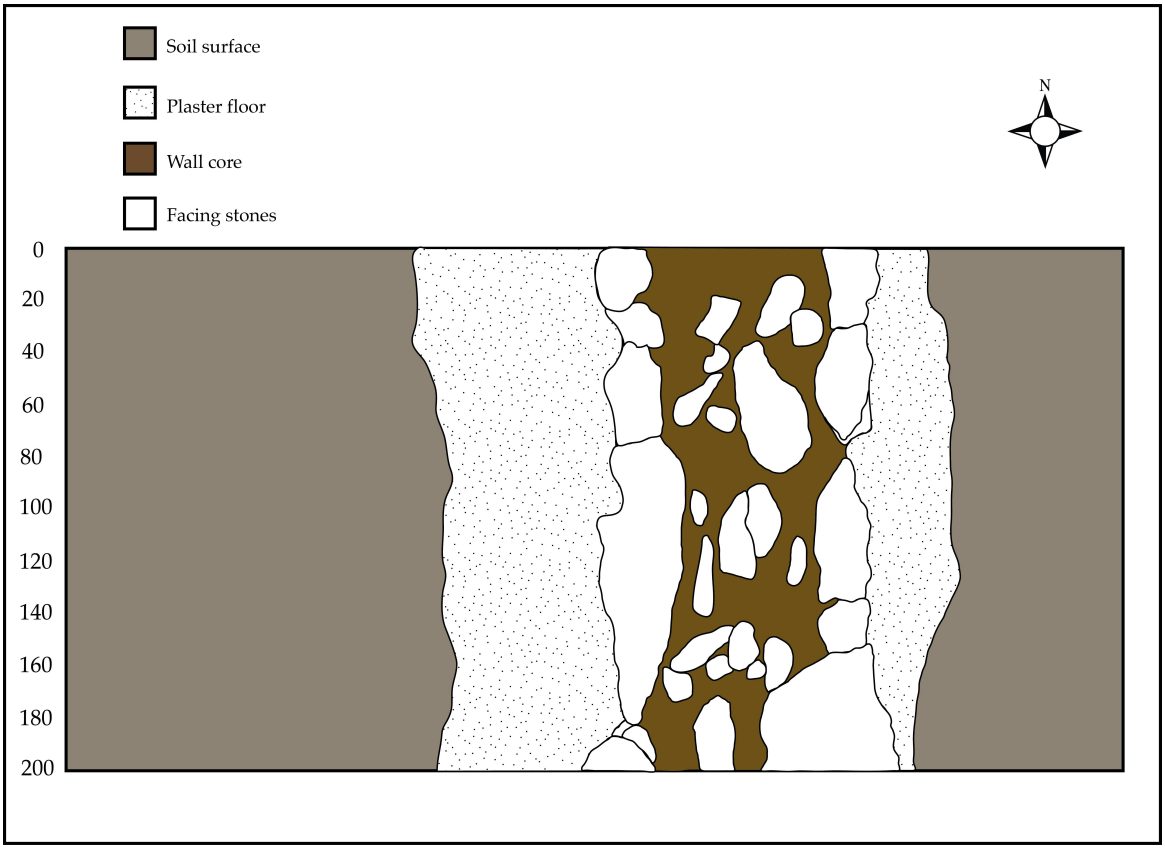

Figure 5.98. Wall feature in the northwest region of the Los Pisos Courtyard.

There were ceramic, lithic and obsidian artifacts within the two lots of this suboperation. The east side of the wall contained higher concentrations of large ceramic sherds (5-7 cm). Many of the sherds appear to be from thick water storage type vessels. Tourtellot (*et al.* 1993) has noted a high presence of large storage vessels throughout the La Milpa center and outlying households, suggesting that all of the La Milpa inhabitants were addressing water issues. A couple of large bifaces were located on the eastern side of the wall, but only small concentrations of lithic debitage were located on this side.

The west side of the wall had few ceramic sherds, but higher concentrations of lithic debitage. This suggests that different activities were taking place on either side of the wall: the eastside was the formal space, while the western may have been less developed evidenced by the lack of a plaster floor four meters northwest of the wall (see Suboperation P).

Figure 5.99. Wall feature in northwest region of the Los Pisos Courtyard.

Suboperation N consisted of a 1 x 1 m unit placed 2 meters from the western façade of Structure 14 and on the eastern side of the wall. The removal of the humus level revealed a cut stone surface (cobbled surface) across the entire unit surface area; however, it may have been collapse debris from Str. 14 (Figure 5.100). Excavations

uncovered a total of four plaster floors (5.101), which match in depth with the plaster floor observed in Suboperation X (Figure 5.59). The youngest plaster floor was part of the last paving episode in the plaza, but was very badly preserved and only small remnants were visible. The last three lots consisted of dry construction fill made up of large chert and limestone boulders. Within Lot 6 the boulders were 7 x 10 cm to 24 by 34 cm and the boulders increased in size in Lot 7 measuring 37 x 26 cm.

Figure 5.100. Suboperation N.

Within Lot 8 the boulders were aligned and appear to be part of an architectural construction, perhaps part of construction pins used to build up the platform (Figure 5.102). Lithic and ceramic artifacts were collected from all eight lots. However,

obsidian was only recovered from Lot 2. Based on matching stratigraphy, ceramic data, and radiocarbon date (see Figure 5.59 and Table 6.14) from Suboperation X, it is clear that the construction in Lot 8 and the floor above it date to the Early Classic period. Not enough of this construction was exposed to definitively conjecture the function of this particular feature. However, it does indicate that more activity than previously proposed for La Milpa during the Early Classic period was taking place within the Los Pisos Courtyard.

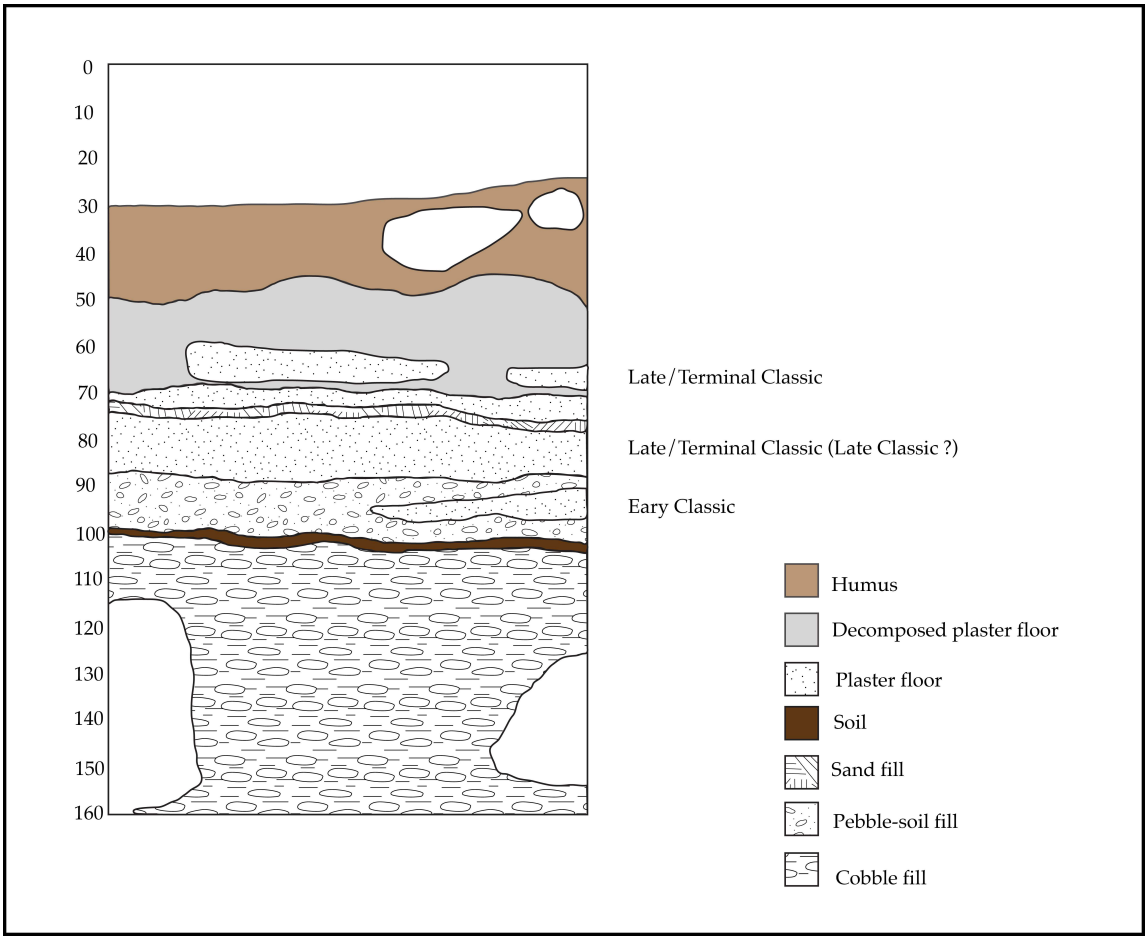

Figure 5.101. Northern profile of Suboperation N.

Figure 5.102. Large boulder construction fill, Suboperation N.

Suboperation P consisted of a 1 x 1 m unit placed on the western side of the wall. This unit consisted of three lots. The first lot consisted of the humus layer. The last two lots consisted of large construction fill mixed in with dark soil that becomes more clay like with depth, suggesting that the builders used a combination of sandy, clay soils for the construction of this section of the platform. The construction fill consisted of large chert and limestone boulders measuring from 5 x 8 cm to 40 x 40 cm. The linear arrangement of the boulders suggests the use of construction pens (Figures 5.103 and 5.104). Typically, construction pens are used to contain the construction fill and provide more stability. Ceramics and lithics were recovered from this suboperation; however,

there were more ceramic artifacts compared to lithics. Obsidian bladelets typically found within the humus layer were absent in this suboperation. The fact that this suboperation lacked plaster floors and consisted of large cobble construction fill suggests that the region on the west side of the wall was not a formalized space and may have been added to expand the platform late in time.

Figure 5.103. Large boulder construction fill, Suboperation P.

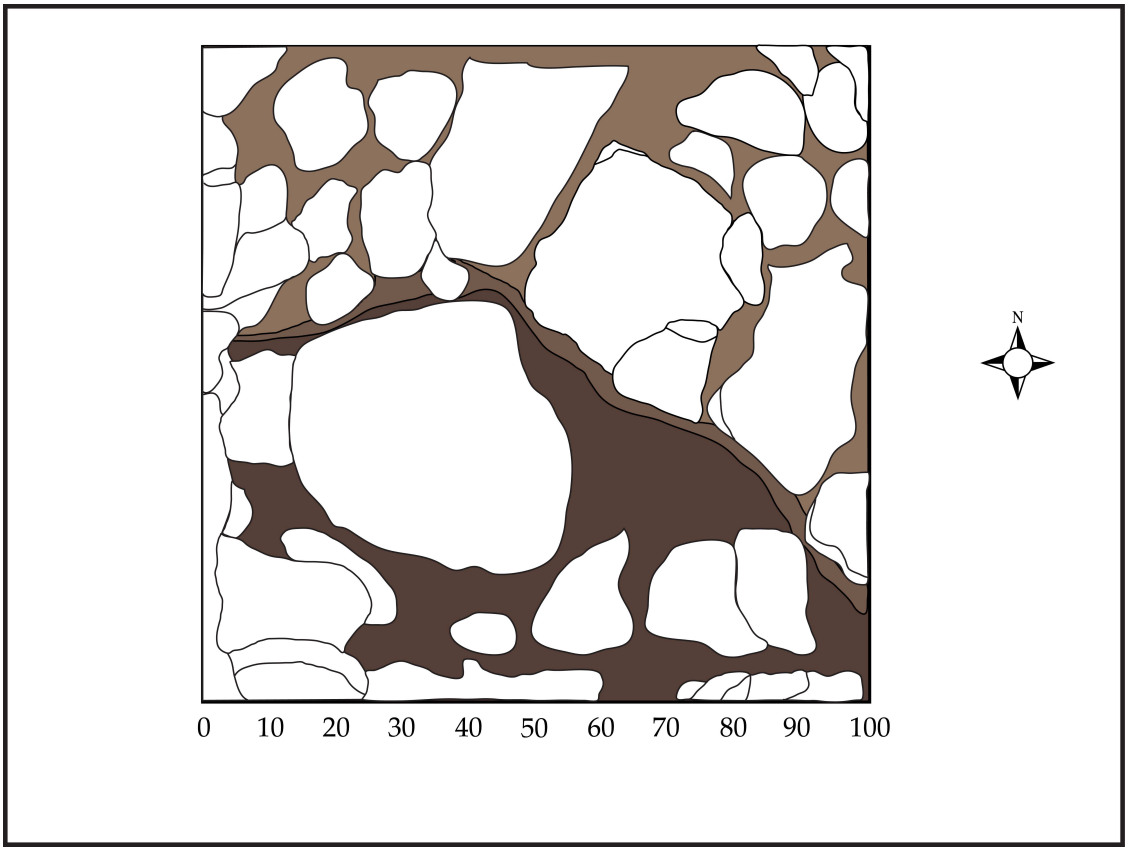

Figure 1.104. Plan view of Suboperation P, large boulder construction fill.

Terraces—Suboperations H and W

An informal survey located three terraces leading from the courtyard down to the drainage below on the northwest end of the courtyard. The survey revealed that the two highest terraces comprised of natural limestone formations, which were artificially elevated with soil (perhaps midden) that was enclosed with large limestone boulders, to prevent the terraces from eroding. There was also a narrow berm construction that perhaps functioned as a ramp or wall. This was constructed from limestone and chert

boulders and extended form the bottom of the drainage area to the top most terrace (Terrace 1). Several small mounds were scattered on Terrace I. It is therefore conjectured that these were not gardening terraces, but perhaps used for habitation purposes. This is a preliminary interpretation and a formal survey is needed. The soil chemical analysis revealed very low phosphate concentrations in the midden located on Terrace 1. The lack of plastered surfaces on the terrace and the presence of ceramic and lithic remains may indicate that the terraces were partially built with midden/trash by occupants of the Los Pisos Courtyard from the Late Preclassic to Late/Terminal Classic periods with trash material.

Excavations only took place on Terrace 1, located just below the platform. These excavations were used to establish the amount of artificial buildup, chronology, and the activities that took place outside the courtyard. *Suboperation H* consisted of a 1 x 1 unit directly west of the western façade of Str. 14 (Figure 5.105). Two lots were excavated prior to running into bedrock at 30 cm. Evidence of plaster floors was lacking in the suboperation, suggesting that it was not a formalized space. However the two lots yielded ceramics, and lithic artifacts. The ceramics from the first lot consisted of Late/Terminal ceramics, while Lot 2 contained Tepeu 2-3 with traces (< less than 5%) of Chicanel. Obsidian bladelets were only recovered from the first level.

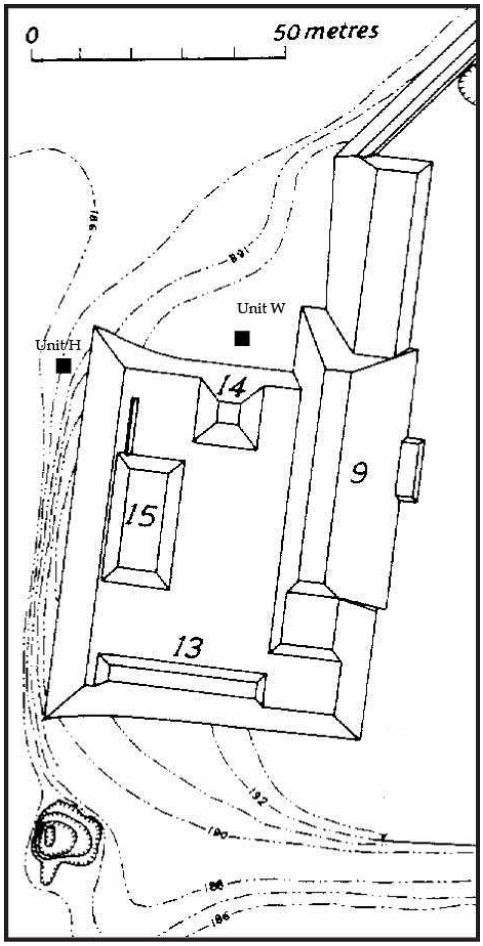

Figure 5.105. Terrace excavations (From Tourtellot *et al.* 1994).

Suboperation W was a 1.5 x 1.5 m unit located on the first terrace north of the Structure 14, was placed directly east of a LaMAP excavation (Operation A03). This midden appears to cover the entire northern area of the first terrace. A total of 16 arbitrary 10 cm lots were excavated, and excavations were terminated at 1.60 m when large limestone boulders were encountered (Figure 5.106).

Figure 5.106. Suboperation W, midden.

Excavations revealed painted molded stucco, ceramics sherds (including a few polychromes) as well as lithic artifacts and charcoal remains. The ceramics recovered date from the Late Preclassic to the Late/Terminal Classic periods. However, out of the 16 lots, only Lots 9 and 11 contained Late Preclassic and Early Classic ceramics while, the levels above and below mostly consisted of Late and Terminal Classic ceramic types––essentially bracketing the early ceramic types. The LaMAP documented very different results from a unit (Operation A03) only 1 m west of Suboperation W. Sagebiel (2005) notes the presence of a good chronological ceramic sequence that commences at the Late

Preclassic through the Early Classic with evidence for a gradual transition into the Late Classic and on through the Terminal Classic periods (400 B.C. to A.D. 900).

Carbonized wood from several lots was collected for radiocarbon dating. A charcoal sample found at the deepest level yielded an uncalibrated radiocarbon age of 2000±40 B.P., with a 2σ calibrated age of 160 B.C. to A.D. 60 (see Table 6.14). This radiocarbon date suggests that the midden was produced over an extended period of time, starting from the Late Preclassic period. The remaining carbonized wood samples from this subop will not be processed due to the bioturbation present in the unit. Collected soil samples underwent soil chemical analysis to determine possible activities that took place at the Los Pisos Courtyard. Methods, results and raw data are presented in the following chapter.

Summary

Vertical and horizontal excavations generated data used to establish the initial occupation of the Los Pisos Courtyard, the changing configuration and use of the courtyard through time as well as ritual activity. Horizontal excavations dominated the research program, often limiting the data for making interpretations concerning the earlier construction phases and activities that took place within this space during the earlier periods. Structure 9, the "palace-type" structure and the largest of the four structures, was not excavated, further restricting interpretations concerning the function, growth and development of the courtyard. Nevertheless, when excavation results were pieced

together, compelling information regarding the formation and development of the Los Pisos Courtyard and its relationship with the site of La Milpa came to light.

The Late Preclassic period (400B.C.-A.D. 250) at La Milpa was more extensive than previously proposed, with occupation in Courtyard D, Plaza A and the Los Pisos Courtyard. Ceramic data indicates that during the Late Preclassic period the La Milpa Core (LMC) was densely occupied area. Late Preclassic ceramics were recovered from all excavations in Plaza A, Los Pisos Courtyard, and Reservoir B (Sagebiel 2005:598-601). However, only four Late Preclassic architectonic features have been located within LMC. Probable architecture is noted in the looters trench in Str. 1 and Str. 5; these most likely had a Late Preclassic component (Guderjan 1991a:11-13; Hammond and Tourtellot 1993:72; Tourtellot *et al.* 1993:102, 1994:121). Courtyard D has a Late Preclassic platform that can be considered the first evidence of monumental architecture at La Milpa (Zaro and Houk 2012), and within the Los Pisos Courtyard a small Late Preclassic building, Structure 1-1, was discovered during the course of excavations conducted by the author. This paucity, I imagine, is due to sampling bias in LMC and the Early Classic and Late/Terminal Classic overburden.

While, it is nearly impossible to differentiate between Late and Terminal Classic ceramic material in the Northwestern Belize region, vertical excavations may afford a differentiation between Late and Terminal Classic paving episodes in the courtyard, as noted in the western profile of Unit B (Figure 5.21) and the Western profile of Unit X (Figure 5.59). The last paving episode of the courtyard dates to the Late/Terminal Classic period. Although plaster floors were located in virtually every excavation in the

plaza, the preservation rate was different throughout the courtyard. Unfortunately this means that any kind of material remains that are part of the last activities that took place in the courtyard may have been intermixed with construction fill. See discussion of archaeological context in Chapter 6.

Excavations throughout the Los Pisos Courtyard revealed variability in paving episodes, especially between the north and south end of the courtyard. In the southern end of the courtyard, multiple matching floors were documented in Suboperations A and B from the Late Preclassic to Late/Terminal Classic periods (Figures 5.4 and 5.21). In northern end of the courtyard, in Suboperations X and N, Late Preclassic and Protoclassic periods paving episodes were not located. Four paving episodes appear to coincide in Suboperations N and X. These four paving episodes also coincide with the younger paving (Early Classic –Late/Terminal Classic periods) episodes in the southern end of the courtyard in Suboperation A and B (Figures 5.21, 5.59 and 5.101). Additionally, the Protoclassic Burial 2 in Suboperation X was located at a much greater depth, 160 cm below the present ground surface, than the Protoclassic burning pit, 80 cm below the present ground surface, observed in Suboperation M. Perhaps the northern end of the courtyard was not formally developed during Late Preclassic and Protoclassic times. Burial 2 may have been placed within the construction fill at the end of the Protoclassic period; just before the Early Classic paving episode of the entire plaza took hold.

The karst topography of the region created a very uneven surface on which the platform was constructed. For example in the southern region of the courtyard the bedrock was nearly 2.0 m below the present ground surface, while just 5 m north and 2 m

east bedrock was present at 60 cm below the present ground surface (Figure 5.34). Dr. Norman Hammond (personal communication 2010) also noted a very shallow and uneven bedrock surface in some areas of the courtyard. It is clear that construction efforts, particularly paving episodes, differed throughout the plaza area. Based on the paving episodes and the undulating topography in the courtyard area it appears that during Late Preclassic and Protoclassic occupation only took place on the natural hillock, the Los Pisos Courtyard Hillock that was perhaps only half the size of the Late/Terminal Classic platform (5.107). During the Early Classic period the northern and western regions around the hillock were built up with construction fill, leveling the area for the Early Classic construction period. This Early Classic leveling may have doubled the surface area to the current courtyard dimensions.

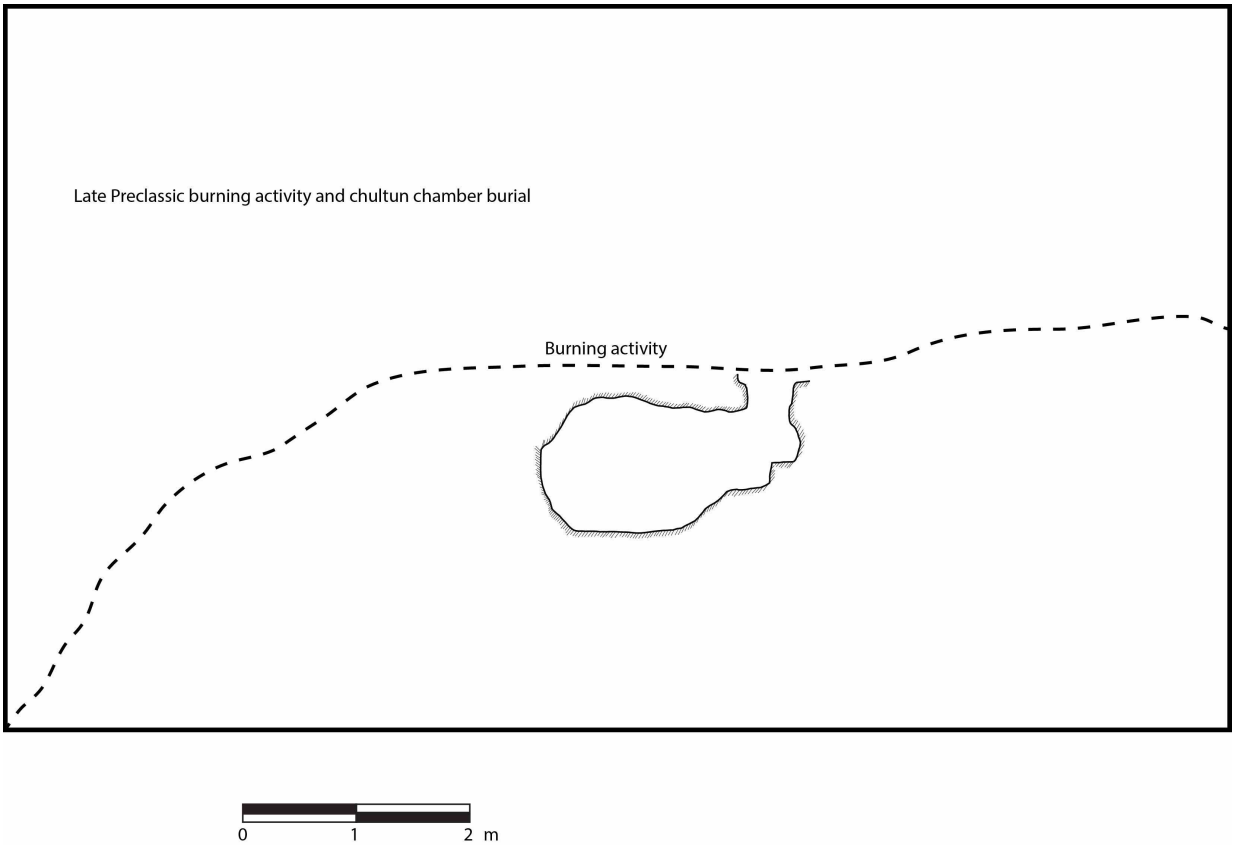

Figure 5.107. The Los Pisos Courtyard Hillock.

One of the most significant Late Preclassic finds, a Late Preclassic chultun burial chamber containing one individual (Burial 1) was discovered through vertical excavations in Suboperation B (Figures 5.27, 5.28, 5.29, 5.30, and 5.108). Evidence of burning, perhaps ritual activity, was encountered on the bedrock surface surrounding the burial chamber (5.107). The removal of the cranium and femurs during a reentry ritual indicates that the individual interred was of high status and his burial may have served to consecrate this space.

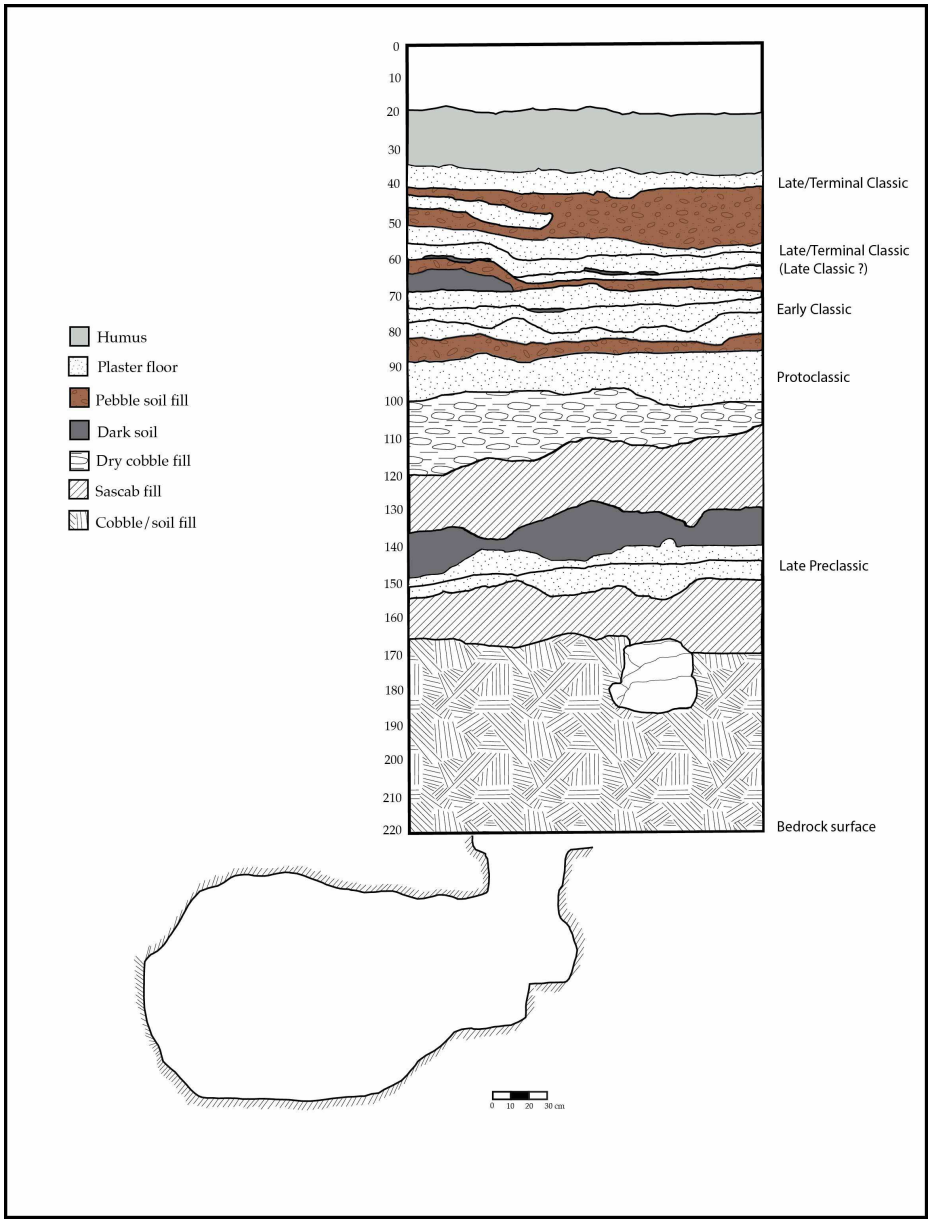

Figure 5.108. Chultun 1, western profile of Suboperation B.

Additionally, A Late Preclassic Structure (1-1) with an attached platform/terrace (Figure 5.18) was discovered in association with the first Late Preclassic paving episode

in Suboperation A (see Table 6.13 for absolute dates). Sagebiel (2005) proposes that the first paving episode in Plaza A corresponds to the first paving episode in Los Pisos Courtyard (Group 88 Acropolis). The extent of the plaster floor in Plaza A during the Late Preclassic is not known, but I suspect that the area around the Los Pisos Courtyard was paved since Los Pisos Courtyard was also becoming a formalized space. There is also a stela cache (Stela 10) in Plaza A that dates to the Late Preclassic period. It is likely that the Los Pisos Courtyard Hillock was transformed into a formal platform, similar to the platform located in Courtyard D of La Milpa (Zaro and Houk 2012).

Above these constructions was a Protoclassic (A.D. 150-250) ritual-burning hearth that appeared to be constructed into the 2nd plaster floor, suggesting that the Los Pisos Courtyard served as a permanent ritual space from the Late Preclassic and through Protoclassic times (see Table 6.13 for absolute dates). Although the radiocarbon age ranges from the carbonized wood from the hearth fall within the Late Preclassic period, the mammiform tetrapod (Floral Park complex) ceramic fragments are indicative of the Protoclassic period.

Vertical excavations in Suboperations X at the base of Str. 14 generated valuable data concerning caching activity. As excavations proceeded below the Early Classic floor, two significant finds were observed and documented: a fragment of a stelae or an altar (Figure 5.60) associated with the Early Classic subfloor fill and a burial (Figures 5.62 and 5.63) dating to the Protoclassic period (Burial 2).

The monument fragment has been interpreted as a dedicatory cache similar to what was recovered at Cuello (1982). The placement of this cache during construction of

the courtyard complex may have served two purposes: one, it may have been an act used to document or cite the Protoclassic ancestor buried directly beneath it, as a way of illustrating and materializing the memory of that ancestor; and two, to concurrently commemorate a new Early Classic period construction program at the Los Pisos Courtyard. Perhaps this courtyard was designated as an area for worship; as this altar was in within the courtyard, a private and isolated location, where only the chosen few were admitted, e.g., the private or isolated altars and stelae that were documented by Tozzer and Maler (1911:102) at the site of Tikal.

The second find consisted of a burial that was placed within the imposing construction fill (Figure 5.59). The skeletal elements isolated within a layer of carbonized wood and ash, clearly suggesting that a burning mortuary ritual took place. Welsh (1988) believes that evidence of carbon and ash are representative of rituals honoring individuals at the time of burial and/or at certain periods thereafter. This type of burial may be classified or considered an "earth offering" (Becker 1992). Becker (1992) differentiates between "burials" (disposal of the dead) and "caches" (making an offering). All these features suggest that during Late Preclassic the Los Pisos Courtyard was a designated ritual space.

Freidel and Schele (1989) juxtapose the scribal and the archaeological record to explore how dedicatory (creative) and termination (destructive) rituals (multiple and discrete events) are sequentially integrated. The archaeological record of events such as cached offerings, "are likely only components of complex ritual behavior involving multiple contexts and diverse materials, together comprising a linked series of primary

deposits" (Freidel and Schele 1989:234). They also propose the existence of sequentially extended dedication rituals very early in Maya society; both places and objects within buildings could have been dedicated. Often, archaeologists identify offerings as primary isolated deposits constituting a single sustained program of sacred action with temporal continuity and spatial integrity (see Freidel and Schele 1989).

During the Late Preclassic, the Los Pisos Courtyard, Plaza A, and the southern region, particularly Courtyard D, were developing into the site center and the ceremonial precinct. Evidence for Late Preclassic occupation was recovered from around the perimeter of LMC, the East Transit, Far West Bajo, LMS, LMW, and LMN Chico (Sagebiel 2005), indicating that domestic occupation was occurring outside the LMC, while the LMC was transformed into the ceremonial precinct and perhaps domestic area for people of higher status. It is clear is that the Los Pisos Courtyard Hillock was subsequently transformed into a formal platform integrated as part of this ritual landscape of the La Milpa precinct as a designated area where rituals, perhaps public in nature, were carried out.

As excavations proceeded, it became evident that the overburdened Late Preclassic occupation was too time consuming and difficult to access, and emphasis was shifted to the Late/Terminal Classic architecture, Strs. 13, 14, and 15. Horizontal excavations produced substantial information regarding their chronology, construction phases, and layout of these buildings. These excavations revealed that the present courtyard dimensions date to the Early Classic period. One of the buildings (Str. 13) and possibly Str. 15 (Figures 5.36 and 5.95) had Early Classic constructions (Figure 5.109)

that were modified and expanded during the Late and Late/Terminal Classic periods (A.D. 600-900).

Large boulders in both Suboperations X and N (Figure 5.102) indicate a mass construction fill episode that uniformly elevated the area during the Early Classic period, expanding the size of the courtyard. This construction program corresponds to the Early Classic activity taking place in Plaza A, e.g., the erection of stelae. The paving of the entire courtyard and Early Classic building construction suggests that the current courtyard configuration began to take form (Figure 5.109). Although Structure 9 was not excavated it is likely that an early sub-construction is present. If such a building were present, the Los Pisos Courtyard would have had a triadic configuration and would have restricted visual access into the courtyard during the Early Classic period (Figure 5.110).

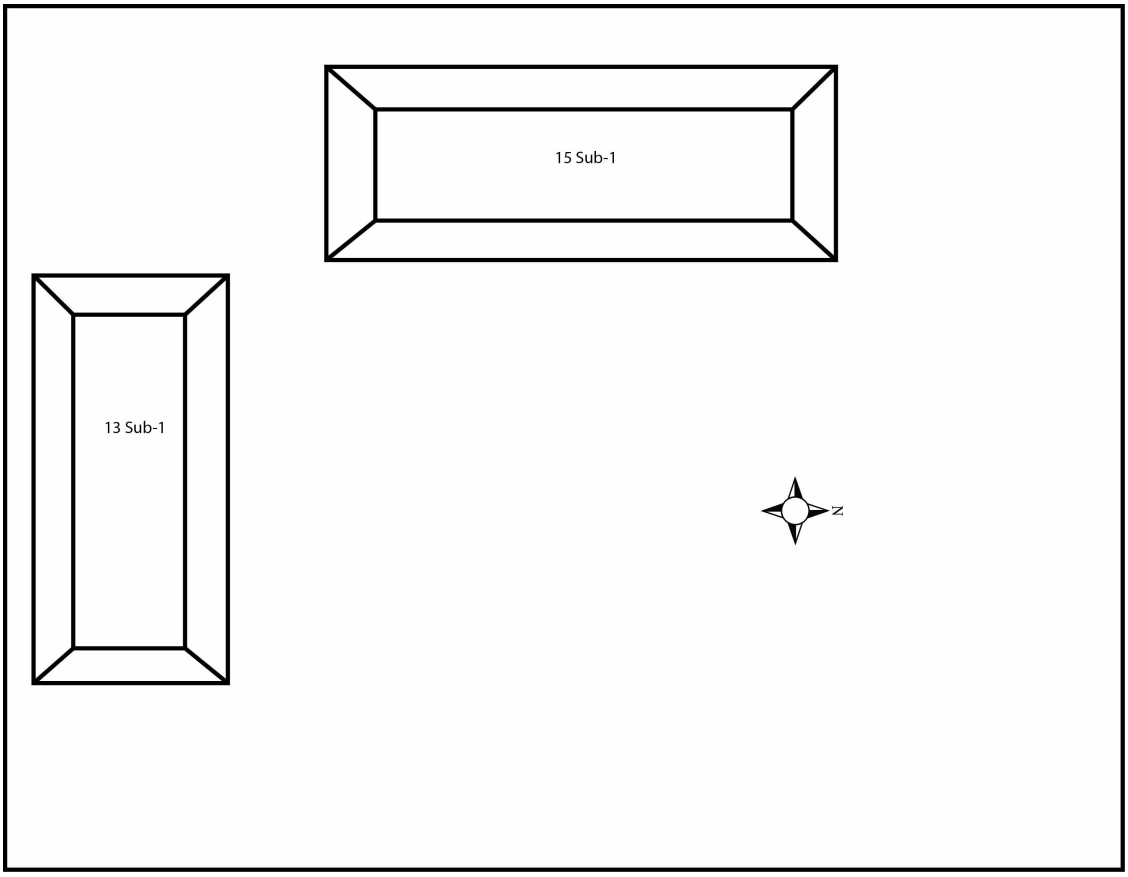

Figure 5.109. Early Classic period Los Pisos Courtyard configuration.

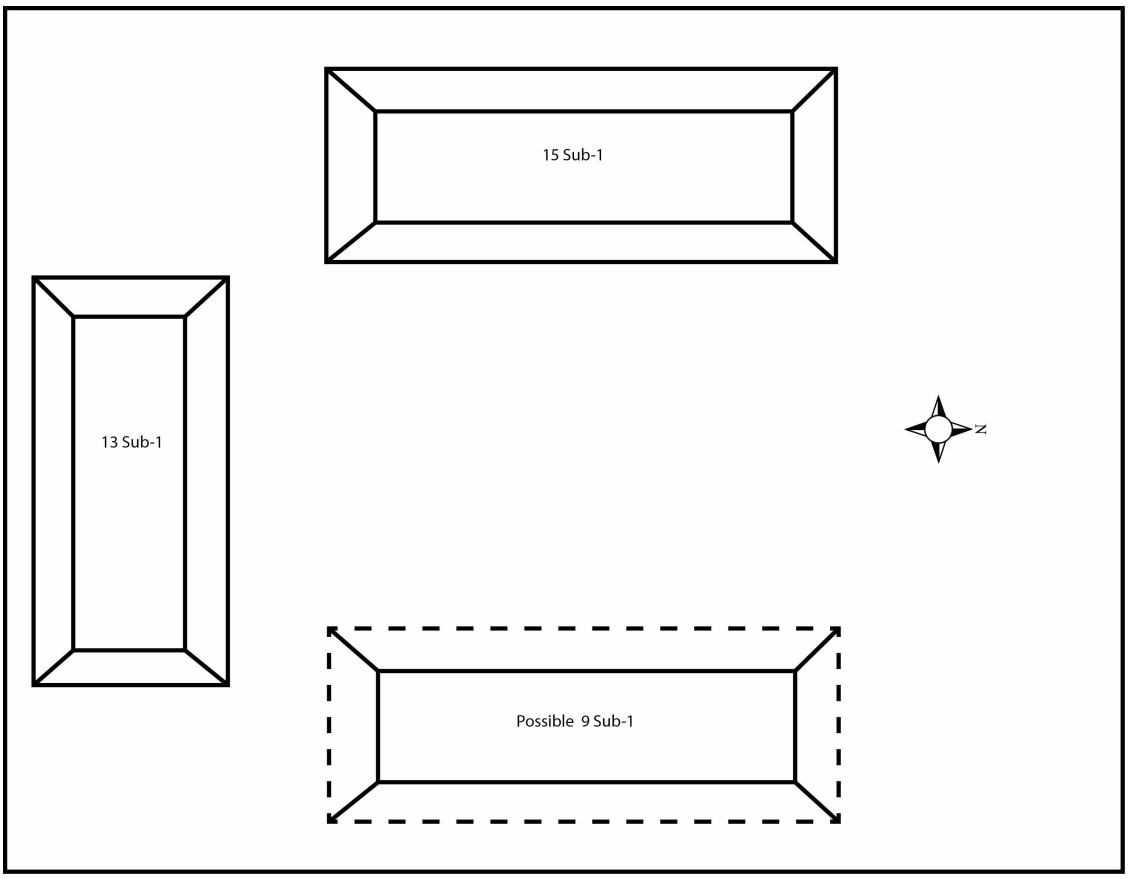

Figure 5.110. Possible Early Classic period triadic configuration for the Los Pisos Courtyard.

Suboperations C, D, E, and F exposed the axial staircase of Structure 13 and a terrace that ran the length of the main building. Excavations AB and AF revealed a one room superstructure. Corbel vault stones were not observed, indicating that the structure had a thatched roof or a beam and mortar roof. The narrow width of this room and lack of benches and other features typically associated with domiciliary status indicate that it was used for other purposes, perhaps for storage. For example, at the site of Dzibilchaltun an ancient Maya house averaged approximately 16.5 m^2 in apsidal type

pole and thatch style with stone foundations (Kurjack 1974). This one room building is approximately 10.325 m^2, significantly smaller even for temporary residence (see Kurjack 1974). Andrews (1992) provides average room size for the Puuc region between 12-18 m^2, a larger average than was encountered in Building 13. One also has to take into consideration that the architecture at Sayil and other Puuc sites where Andrews conducted his research is much grander in scale.

The looter's trench afforded a clear view of sequential construction phases and modifications to Structure 14. It is proposed that structureless platforms were used for ritual performance (see Chapter 9). Profiles revealed the first construction phase was a terraced platform (Str. 14 Sub-1) with at least two substantial paving episodes (Figure 5.68). It appears that the main platform construction episode was a single effort possibly during Late Classic times. A large construction effort, possibly carried out during the Late/Terminal Classic periods is a pattern noted by Hammond throughout La Milpa (Hammond *et al*. 1996). Within La Milpa, late additions and construction projects are differentiated by "cheap" dry cobble fill. All LC II buildings have this fill, consisting of large, rough chert cobbles and massive lumps of limestone, as noted in Strs. 14 and 15. Sagebiel (2005) and others (Hammond and Tourtellot 2004: 292-293) also note the shift from cut limestone blocks for construction fill during the Early Classic to large chert cobbles during the Late Classic. This form of dry chert cobble construction fill is also present at the site of Lamanai (Graham 2004: 226). Therefore the presence of the dry cobble fill within Str. 14 Sub-1 suggests a Late Classic construction.

The lack of an earlier construction phase within the platform makes the earlier architectural layout of the group puzzling. Was this region of the courtyard an open but paved space? It is possible that a smaller building may have existed within the platform and was completely removed before the construction of Structure 14 Sub-1. However this is not typical of Maya construction, whereby Maya architects added height, volume, and stability by building upon earlier constructions—monumentalizing (McAnany 2010:141; Pollock 1965). An alternative to the architectonic explanation for an imbricated building tradition, is Coe (1956:388) suggested by where the new constructions superimposed over the old was a way for the Maya to commemorate the interment in the "lineage" mountain of an important member of the patrilineage.

Freidel and Schele (1989) propose that power increases with the scale of monumental architecture. Ideologically, power takes hold during the encasing and burning of earlier renderings of community-focused architecture. At Copan, demolition practices generally affected superstructures, particularly earthen structures, to increase the stability of the subsequent construction (Agurcia 2004; Sedat and Lopez 2004; Traxler 2004). Traxler (2004) also noted that substructures were less affected. It is also entirely possible that Str. 14 was constructed over a perishable structure that is no longer present.

The second construction phase of Str. 14 consisted of a two-room superstructure. There also appears to be floor refurbishment, only within the room interiors. An axial staircase interment dating to Late and Late Terminal Classic period (A.D. 600-900) of an individual with a diet rich in protein and maize (see Chapter 6) was also exposed in the

looters trench. It is not clear if the burial (Burial 3) was placed there before or after the construction of the two-room superstructure; the burial is located just outside the building and within the construction fill of the platform. This may have been one of the last internments in the Los Pisos Courtyard. Based on its northern location, size, room number (N=2) and quality of construction material, it proposed that Structure 14 served as the group shrine during the Late/Terminal Classic period. Ashmore (1989; 1991) and Schele and Miller (1986:277) assert that north is representative of the celestial supernatural sphere where ancestral rulers occupy the heavens.

Excavations on Structure 15 revealed important data concerning its Late/Terminal Classic construction. Multiple units (Suboperations G, K, O, Q, V, Y, AA, AC, AD, and AE) were placed on this structure; however, its eastern façade was badly damaged which probably aided to a faster and more intense deterioration of this side of the building. On the summit of the building, the collapsed walls of the superstructure indicate at least three rooms. Interiors of the superstructure were not explored; however a possible superstructure wall was exposed in Suboperation K. The cut stones in this alignment were substantial in size, indicating a high quality material was selected for this building (Figure 5.82). It appears that two main platforms make up the substructure (Figure 5.96). However, the first platform like structure most likely dates to the Early Classic period. Excavations in Suboperation AE indicate that the second platform (Late/Terminal Classic period) was probably adorned with monumental art based on the size of modeled stucco fragments recovered (Figures 6.49-6.55).

There was possible evidence of ritual termination activity on the southern and eastern facades of Str. 15. On the eastern façade, a cache consisting of two complete and 1 nearly complete obsidian blades (typically associated with bloodletting) were found, and on the southern façade, a large number sherds from water vessels jars and a complete water vessel jar was recovered from the outset surface in Suboperations AA and the southeast corner in Suboperation Y. There was an ashy lens on the southeast corner of Str. 15 (Suboperation Y).

The Los Pisos Courtyard grew and expanded from the Late Preclassic through Late/Terminal Classic periods. Ritual activity appears to be a dominant and important form of social interaction during the Late Preclassic period. The Los Pisos Courtyard Hillock may have served as a natural integrative ritual platform that grew simultaneously with Plaza A. During the Early Classic period the courtyard grew exponentially, it appears that the courtyard may have doubled in size. The current courtyard layout also began to take form during this period and may have been transformed into a more exclusive and private space, reserved for a certain segment of the La Milpa population. By the Late/Terminal Classic period, this was a very exclusive space; both physical and visual access was extremely controlled. The courtyard during this time may have served as a private ritual arena and temporary residence for the highest echelons of La Milpa.

Chapter 6: Material Culture

> The manner in which archaeologists configure and present studies of the past is greatly influenced, to adapt a term from Peacock (2001), by the long lens and soft focus of the so-called archaeological record: hundreds, and often thousands, of years of lived existences compressed into a sedimented sequence of artifacts and structural remains that provide a vivid material reminder of the resilience of humanity. (McAnany 2010:19)

The analysis of "hard" and "soft" deposits in combination is one of the most effective methods used to explore the function of architecture and architectural groups. For this research artifact assemblages, mortuary data, and non-artifactual material will be used to explore and make interpretations regarding agents and their activities. Cultural material, in conjunction with the architecture of the Los Pisos Courtyard, was analyzed to provide broader interpretations regarding the use and function of this and other similar complexes in the Maya lowlands, and to better understand the daily lives and interactions of elites and perhaps other members of Maya society.

Plaster and soil chemical analyses have heavily contributed to the exploration of space-use patterns and have become a widely used tool throughout Mesoamerica and beyond. Therefore a pilot study employing plaster and soil chemical analysis was implemented to supplement interpretations of the activities conducted in such formalized spaces, e.g., food processing and/or consumption, craft production etc. Radiocarbon analysis accompanied by ceramic data also played a fundamental role in establishing the chronological trajectory of the Los Pisos Courtyard. The burials in and of themselves served as a fundamental component of this dissertation and are also discussed in this

chapter. Discussions concerning artifact assemblages and what they may represent as well as their archaeological contexts are also addressed.

Artifact Assemblages

Artifact assemblages or elements that represent certain activities such as domestic, ritualistic and/or craft production have been identified in the literature and were used to make interpretations of the probable use of buildings and to demarcate activity areas. Artifact categories often present in areas where food preparation and consumption were taking place include, but are not limited to, the following examples: utilitarian lithic tools, scrapers and blades used for cutting hard materials such as bone; utilitarian vessels such as storage jars and ollas (vessels with restricted orifices) and vessels used for serving and eating (bowls, ollas, platters, and cylinders); and other food preparation items, including *metates* and *manos*, typically used for grinding corn and other foodstuffs.

The differences between artifact assemblages used in food preparation and consumption have also been addressed in the literature. For example Harrison (1970) argues that evidence of food consumption, lack evidence of food preparation (e.g., the combination of stone tools, ollas and cooking pots and food remains). Areas containing artifacts associated with only food consumption can be an indicator of temporary residence. Additionally, a food preparation area would have a higher distribution of broken vessels and more utilitarian vessels and tools (a kitchen midden) compared to an

area strictly used for food consumption. However, this pattern is not always representative or an indicator of temporary residence.

Although these artifact classes indicate a residential function, such assemblages may not always be present within royal and high elite residences. It is assumed that food was prepared outside formal precincts and would be carried in for consumption, in a sense "take out." Tourtellot *et al*. (1992) share the same belief and presume that elite families had more floor space per person due to the fact that they would have their food prepared elsewhere and brought to them by servants. At the Central Acropolis of Tikal Harrison (1970) argues that structure 5D-131 was a large kitchen where servants prepared food to take into the Acropolis.

For example, a scene from the Calakmul murals depicts a royal woman clothed in a diaphanous, cartouche-adorned *huipil* retrieving a large *olla de atole* from the head of a crouching female dressed in simple clothing (Boucher and Quiñones 2007, Figure 3; Vargas *et al*. 2009: Figure 3). Such depictions perhaps indicate that food was cooked elsewhere and brought to the royal household. Landa observed that, in the Yucatán, servants' quarters were located outside the enclosures of the lord's house (Tozzer 1941:26). Therefore it is clear that cooking features and food preparation artifacts are often not always present in "palace" complexes (see Chase and Chase 2001; Clark and Hansen 2001; McAnany and Plank 2001).

Artifact assemblages used for ceremonial activities, storage and craft production also have discrete properties. Harrison (1970) makes a distinction between "domestic ceremonialism" and "formal non-domestic ceremonialism." Non-utilitarian

accoutrements such as large ceramic polychrome serving vessels and incensarios would be indicative of ritual and perhaps community feasting activity. The presence of ritual paraphernalia such as, music instruments, obsidian blades, stingray spines and jade objects used for bloodletting, eccentrics and ceremonial laurel leaf points would serve as markers of ritual activity. Objects used in burials, caches, and termination rituals that sanctify or de-sanctify a place can also be considered ritual objects. Yant (2011) includes non-visible practices such as caching or burying important personages in buildings as a way to demarcate sacred space and can be considered ritual features.

High concentrations of utilitarian or precious objects in a single area would suggest storage space. Craft production also generates a quintessential artifactual signature. A transparent example of craft production would be large amounts of raw materials (jade, pyrite, obsidian) in a localized area in combination with certain tools (e.g., spindle whorls, bark beaters and drills) and/or evidence of finished products.

Archaeological Context

The largest concentration of artifacts date to the Late/Terminal Classic period, however there exist fundamental issues regarding whether a large percentage of the Tepeu 2-3 ceramics and associated lithics and special finds recovered from the Los Pisos Courtyard were part of a primary or secondary deposit. The significant number of artifacts made it necessary to exhaust all possibilities in order to determine the context of such deposits. Primary deposits consist of middens and occupation debris, excluding fill or collapse material. Primary deposits are most useful because in most cases they

represent specific activities performed within a specific space. Conversely, secondary deposits may represent many different activities from material that is commingled (LeCount 2001).

Three possible scenarios are proposed for the formation processes of the archaeological record from which most of the cultural material were collected. It is highly probable that all the Late/Terminal classic material recovered from many of the excavations, particularly material that was recovered from between the last paving episode and the humus layer in the plaza area had eroded out of the last construction and paving program at Los Pisos Courtyard. This also includes material recovered from the last construction episodes and humus layers on buildings. The youngest plaster floor was partially eroded in many parts of the plaza area and the presence of pea-sized pebbles where the plaster floor was eroded may indicate the presence of an aggregate (see Loten and Pendergast 1984) used for the construction of plaster floors. Sagebiel (2005) describes the last floor surface at the Los Pisos Courtyard as (aggregate) or tumble gravel, indicating an eroded plaster floor. However, deep vertical excavations in the patio of the Los Pisos Courtyard revealed that, material culture is mostly absent from all construction fill. Therefore, the use of substantial amounts of the material culture, particularly ceramics, in the construction fill would have been a new phenomenon that only occurred during the last repaving episode at the Los Pisos Courtyard.

The material remains in question may also be construction fill of an unrealized re-pavement and/or construction episode. There is evidence that La Milpa was abandoned in the mist of a construction program, for example the South Acropolis, Str. 21 and the

lack of construction north of Plaza A (Hammond and Tourtellot 1993, 2003b; 2004; Zaro and Houk 2012). However, this uniform layer of artifacts was also present on the facades of Buildings 14 and 15, right above the last construction phase and intermixed with the humus layer. Additionally the construction fill and collapse debris from Structures, 13, 14, and 15, do not have much in terms of artifacts (ceramics and lithics), indicating that the use of material remains for building construction would have also been part of new construction method.

It is also conceivable that the material culture is related to the last activities that took place at the Los Pisos Courtyard. In most courtyard excavations, the youngest plaster floors encountered are at the same depth, approximately 15 to 20 cm below the present ground surface. This suggests that the youngest floors encountered were part of the last paving episode in the courtyard. Such primary deposits have been referred to as "terminal occupation debris." Objects are simply left on the floor surface because of the breakdown and decline of the urban infrastructure during the Late/Terminal Classic period. Zaro and Houk (2012) propose such a breakdown in the infrastructure for La Milpa.

For example, during the Early Classic "hiatus" LaMAP project recognized plenty of public and private spaces that lacked proper care and maintenance. At the end of the Late Classic middens and eventually trash began to accumulate within the Late Classic Royal Residence, 10L-2, at Copan. Andrews and Bill (2005:301) attribute this phenomenon to the "deterioration of the urban infrastructure, an inability to control a large labor force, and a decline in the power and status of the occupants of the royal

residence." Harrison (1999: 196-198) also argues that surface deposits at Tikal's Str. 5D-46 represent the debris of the final occupants of this structure and site.

Terminal occupation debris permits a variety of interpretations. However, Plank (2003) firmly asserts that such deposits should not be used for making interpretations regarding function, particularly because the last activities taking place within a particular space may not express the prescribed function of a building, group or space. For example at Dos Pilas such deposits could be the remains of post occupation activity, i.e., post-collapse concentration of trash and artifacts present within the middle status households (Plank 2003).

Nevertheless, most of the ceramic material from the Los Pisos Courtyard could not be refitted. Refitting was only possible for a very little number of the ceramic material that came from the midden (Suboperation W), the southern façade of Str. 15 (Suboperations AA and Y), and the southwest corner of Str. 15 (Suboperation AE). However the refitted ceramic material from Suboperation AE dates to the Early Classic period. The lack of refitting strongly negates the possibility that these deposits are the result of the last occupation in the courtyard.

There is a strong indication that part of material remains (ceramics) that date to the Late/Terminal Classic period, particularly those recovered above the last construction episode of Strs. 14 and 15 may have been part of a termination ritual performed prior to the abandonment of the Los Pisos Courtyard. In this case it appears that Str. 15 and perhaps Str.14 were ritually terminated with material that was brought in from elsewhere as a secondary deposit. Such deposits have been referred to as "problematic deposits"

(Clayton *et al.* 2005; Houk 2000). Problematical deposits are often recovered from the centerline of monumental, ceremonial architecture (ritual context) and are midden like in appearance (Houk 2000). "…a problematical deposit might be the result of a single event or a sequence of events widely space in time" (Moholy-Nagy with Coe 2008:2). The term "problematical deposit" is most often applied to deposits that defy classification (Brett Houk, personal communication 2013).

Often, problematic deposits are interpreted as "termination" ritual deposits as originally reported by Coe (1959:94-95; 1965a: 464) and more recently by Freidel (1986), Garber (1986) and Houk (2000). These offerings are thought to have been made in relation to the structure or surface on which they are placed at the moment of abandonment (Coe 1959:94). Ceramic vessels are intentionally destroyed and deposited or scattered during the ritual *event* that represent the "termination" of structures or whole sites. Cyclical destruction and renewal characterizes pan-Maya termination rituals during which intentional deposition and scattering can include the following items: decomposed limestone (sascab), ceremonial objects and burned and smashed ceramic vessels (Garber 1986). Coe (1959:94) discusses "ceremonial object sacrifice" as part of "ritual renewal." These termination rituals do not occur solely to mark a new construction phase. Coe (1965a) notes, "exposed offerings" which consist of concentrations of broken pottery on top of buildings or the last occupation surface without subsequent construction. These offerings are found beneath the humus and accumulated debris and may have been buried with the passage of time concealing all evidence (Coe 1965a).

The careful examination and evaluation of the excavations, particularly the lots from which the material remains were recovered and the location of such deposits was taken into account to establish a probable context. Artifacts were not present in the building construction fill or in the collapse/infill debris of Strs. 13, 14 and 15 in high quantities. All of the construction fill between the paving episodes was mostly devoid of ceramics and other cultural remains. Moreover, ceramics were preset in high quantities on the buildings and within the courtyard plaza, albeit fragmentary (Figure 6.1).

Figure 6.1. Tepeu 2-3 ceramic sherds from the Los Pisos Courtyard excavations.

The assessments presented above, coupled with a review of the literature that deals which such difficult deposits, suggest that the ceramic remains dating to the Tepeu 2-3 period that were recovered from the facades and bases of Str. 15 and perhaps 14 appear to be part of a termination ritual "exposed offerings" as proposed by Coe (1959:94; 1965a). Such a ritual may have been conducted by last occupants of the Los Pisos Courtyard as a way to end the use of the courtyard and will be discussed in Chapter 9.

Analyzing and interpreting such elusive deposits, especially if these deposits were brought in from a different location and redeposited in the Los Pisos Courtyard, can be a daunting task and at times appear futile. Nevertheless, Clayton *et al.* (2005:121) have called for a careful evaluation of problematical deposits. They believe that detailed examination of these deposits and the depositional behavior that produced them may provide and contribute to a greater understanding of Maya ritual behaviors. For La Milpa fine grain examination of such deposits may elucidate activities taking place prior to its final abandonment.

However, the formation processes for the ceramics from the Los Pisos Courtyard plaza floor and from other locales in the courtyard are not clear, and one or a combination of the scenarios presented above could account for their archaeological context. They may have been intermixed with construction fill and/or deposited for very distinct reasons and at different times. After an exhaustive analysis and attempt at interpretations that became more problematic than the deposits themselves, it became clear that these artifacts could not be used for the current research.

Therefore, even though visible patters of certain ceramic types and forms representative of elite food consumption (small bowls, see LeCount 2001), were present it was best to not to incorporate the ceramic data for exploring primary activities conducted within the Los Pisos Courtyard. The lithic data on the other hand may be representative of post-occupation activity based on the presence of Postclassic projectile points and different depositional patterns. Therefore, an analysis for the lithic data is presented in this chapter. The special finds are part of the "problematical deposit," however; represent some of the accouterments of the La Milpa elite and are also described and discussed in this chapter. The small finds are unremarkable considering the location of the Los Pisos Courtyard. This has been attributed to a slow abandonment process whereby all valuable possessions were removed. It seems that throughout the history of La Milpa status items are present, but are of lower quality and quantity when compared to other site centers, perhaps there was more importance placed on cosmological and ideological constructs, rather than the material objects themselves.

Ceramics from the Three Rivers Region and La Milpa

In the Maya lowlands ceramic artifacts are the most ubiquitous and have provided unsurpassed information about past activities, from social-political organization, ritual behavior, and trade networks, to general household activities. The ceramics from the Los Pisos Courtyard were analyzed by Dr. Lauren Sullivan, the ceramicist for the PfBAP. Dr. Sullivan employed the traditional type:variety mode of analysis with sherds placed into types and varieties based on surface treatment, decoration and paste (Gifford 1960:

Wheat, Gifford, and Wasley 1958; Willey, Culbert, and Adams 1967). Out of the 32 Suboperations excavated a total of 9,428 ceramic sherds was analyzed for chronology, type:variety and form.

Table 6.1 illustrates the percentages and counts of ceramics from all time periods. In some instances there is evidence of trace amounts (less than 5%) of Chicanel and Tzakol ceramics intermixed with Tepeu 2-3 deposits. Table 6.1 illustrated strictly Tepeu 2-3 and Tepeu 2-3 intermixed with other time periods are separated into their own categories. This was done in an attempt to elucidate the nature of these deposits, as mentioned above, most the Late/Terminal Classic material culture was recovered from an elusive context and separating such deposits may have provided additional information.

Late Preclassic: 400 B.C.–A.D. 250

Three-Rivers Chicanel Sphere Ceramics, also defined at Edenthal for La Milpa (Kosakowsky *et al.* 1998; Kosakowsky and Sagebiel 1999; Sagebiel 2005; Sullivan and Sagebiel 2003; Sullivan and Valdez 2004), consist of sherds with a waxy surface. This is the most common slip found on Late Preclassic ceramics throughout the Maya Lowlands at sites such as Uaxactun, Colha and Barton Ramie (Sullivan and Sagebiel 2003). The Sierra Red type is the most common in the region comprising 68 percent of the Late Preclassic sherds (Sullivan and Sagebiel 2003). Indicating that sites in the Three Rivers Region participated in and were a part of a widespread trade and interregional communication networks of the Maya lowlands by the Late Preclassic period (Kosakowsky *et al.* 1998; Kosakowsky and Sagebiel 1999; Sullivan and Sagebiel 2003).

At La Milpa Hammond (*et al.* 1998) document Late Preclassic ceramics in almost every excavation suggesting that La Milpa played a role in the interregional network of the Petén sites of Tikal (Culbert 1993), Nakbe (Forsyth 1993) and El Mirador (Hansen 1990) as well as the Pasion River sites of Ceibal (Sabloff 1975) and Altar de Sacrificios (Adams 1971). The most distinguishable types include Sierra Red, Polvero Black, Flor Cream, Matamore Dichrome, Chicago Orange, San Felipe Gold, Sapote Unslipped and Paila Unslipped Ceramic Groups (Kosakowsky and Sagebiel 1999).

Although the Los Pisos Courtyard appears to be major activity hub at La Milpa during Late Preclassic times, only 2% (Table 6.1) of analyzed sherds consisted of the Chicanel Ceramic Sphere. There are also trace amounts (< than 5%) of Chicanel with Tepeu 2-3 throughout the courtyard area. Such a small quantity is mostly due to the superimposed Late/Terminal Classic architecture that limited vertical excavations at the site. There also exist the possibility that this pattern represents a ritual use of this space, rather than residential.

Figure 6.2. Mammiform tetrapod recovered from ritual hearth.

In 1998 mammiform supports from a Protoclassic tomb were discovered at the site of Chan Chich (Houk *et al*. 2010), and Kosakowsky and Sagebiel (1999) also note the presence of one or two examples of possible mammiform tetrapod supports at La Milpa. At Los Pisos Courtyard, a set of mammiform tetrapod supports that were burned and heavily eroded (Figure 6.2) were recovered from a ritual burning pit with carbonized wood, which yielded uncalibrated radiocarbon ages of 1890±38 B.P, 1850±37 B.P., and 1850±B.P., with 2σ calibrated range ages of A.D. 51-230, A.D. 74 to 244, and A.D. 75-240, respectively (Table 6.13). This new data supports the presence of a ceramic sphere corresponding to Floral Park (A.D. 100–250) at La Milpa (see Brady *et al.* 1998; Valdez 1998). Meskill (1992) presents detailed definitions concerning the shift in forms and

modes, slip color and technology as well as the use of and context for Protoclassic ceramics at Kichpanha and Colha, Northern Belize. Additional ceramic sherds were found within this deposit (Figures 6.3, 6.4, and 6.5). A vessel spout (chocolate vessel?) was located in the construction fill of Suboperation X (Figure 6.6).

Time/Period	Total No. of Sherds 9,428
Chicanel	2% (N=188)
Tzakol/Chicanel	.01% (N=3)
Tepeu 2-3 with Trace of Tepeu 1(<5%)	3% (N=282)
Tepeu 2-3	63% (N=5939)
Tepeu 2-3 with Chicanel/Tzakol Trace (<5%)	31.99% (N=3016)

Table 6.1. Percentages of Ceramics by time periods for the Los Pisos Courtyard.

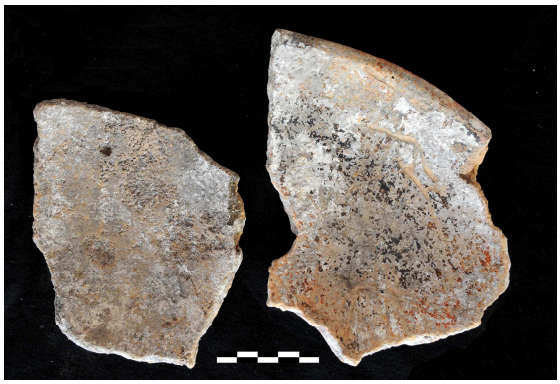

Figure 6.3. Late Preclassic period ceramics from ritual hearth (interior).

Figure 6.4. Late Preclassic period ceramics from ritual hearth (exterior).

Figure 6.5. Late Preclassic period ceramics from ritual hearth.

Figure 6.6. Late Preclassic period vessel spout, Suboperation X.

Early Classic: A.D. 250–600

Ceramics dating to the Early Classic, A.D. 250-600, illustrate an incredible amount of regional variation throughout the Maya Lowlands (Sullivan and Sagebiel 2003). Early Classic ceramics, also designated as the Petén Tzakol Ceramic Sphere, are present within the Three Rivers Region. A high percentage of luxury ceramics with very few utilitarian wares characterizes this sphere in the Three Rivers Region. Many of varieties are viewed as transitional between the Late Preclassic and Early Classic and it is often difficult to differentiate between the two spheres (Kosakowsky *et al.* 1998; Kosakowsky and Sagebiel 1999; Sullivan 1998; Sullivan and Sagebiel 2003). This is attributed to the continued use of Late Preclassic types and Chicanel slips in the Early Classic (Kosakowsky *et al.* 1998; Kosakowsky and Sagebiel 1999; Sullivan 1997; Sullivan and Sagebiel 2003). Certain changes in utilitarian wares, however, have been

used to differentiate between Late Preclassic and Early Classic Ceramics (Takeshi Inomata, personal communication 2013).

Ceramics from both elite and non-elite contexts indicate a strong local potting tradition; however the presence of varieties similar to northeastern Petén varieties indicates burgeoning external social and political ties between La Milpa and the Petén (Sagebiel 2005; Sullivan 2002; Sullivan and Sagebiel 2003). Adams *et al.* (2004:335) maintain that La Milpa was a part of the city-state of Tikal during Early Classic times. If La Milpa was part of the Tikal body politic it was absorbed rather quickly according to Sagebiel (2005: 732). She notes a very abrupt adoption of Petén related ceramics. Thus, ceramics from throughout the Three Rivers Region indicate interregional ties with the Petén during this period. However, as noted by Garrison and Dunning (2009), the Three Rivers Region is made up several territories, each with contemporaneous city-states. Therefore, it is quite possible that La Milpa may have been influenced and/or had connections with cities such as Xultun for example.

The ceramics recovered from a tomb at Dos Hombres Courtyard B-4 consisted of vessel types and forms including a Dos Arroyos Orange polychrome bowl, a Yaloche Cream Polychrome lid with macaw imagery and a coatimundi effigy vessel. These finds correspond with ceramics from the sites of Tikal and Uaxactun (Sullivan 2002; Sullivan and Sagebiel 2003). At El Grupo Barba, a small tomb contained five Tzakol 3 vessels, a Teotihuacán tripod vessel cylinder with a matching lid with a human head handle, and two zoomorphic orange polychrome jaguar and turkey vessels all demonstrating high elite symbology and paraphernalia (Sullivan and Sagebiel 2003).

The elites in the Three Rivers Region, particularly at the sites of Dos Hombres, El Grupo Barbara and La Milpa, were participating in the elite-subcomplex of the Petén. Accordingly the funerary accouterments from these sites are luxury vessel types exchanged and or gifted between elites from different sites. However, according to Sullivan (2002) the paste and temper from ceramics recovered at Dos Hombres resemble local clay sources. This suggests that importation of ceremonial symbols and designs also held great importance in the Three Rivers Region (Sullivan 2002:211).

For La Milpa Early Classic ceramics were very limited and sporadically recovered from the site center, however a different scenario played out at other sties in the region. This under-representation may be attributed to the continued use of Chicanel like slips and Late Preclassic ceramics into the fourth century (Kosakowsky and Sagebiel 1999; Sullivan 1997). However, Inomata indicates that "in most areas there are certain changes in utilitarian wares and it should be possible to separate Early Classic and Late Preclassic ceramics" (Takeshi Inomata, personal communication 2013).

Kosakowsky and Sagebiel (1999) note the following varieties for this period: Dos Arroyos and Actuncan Orange Polychromes; Aguila Orange; and Balanza Black. Two deposits, a cache and a burial, in the Plaza A at La Milpa exhibit exemplary instances of Tzakol Sphere (Kosakowsky and Sagebiel 1999; Sagebiel 2005; Sullivan and Sagebiel 2003). The vessels from the burial (Operation B 11) are also stylistically associated with the sites of Uaxactun and Tikal. Included in the tomb were a Paradero Fluted Teotihuacán style cylinder tripod, a Positas Modeled monochrome black lid with a human effigy handle and a Dos Arroyos Orange Polychrome basal flange bowl with a

gutter spout and serpent design. Apparently, unlike other sites such as Altar de Sacrificios (Lincoln 1985:65) and Ceibal (Tourtellot and Gonzalez 2004: 66), all of the inhabitants of La Milpa, both elite and non-elite, had access to Petén fine wares—(Sagebiel 2005: 732).

At Los Pisos Courtyard very few ceramics date to the Early Classic period. A total of 75 sherds were recovered from this time period and in most cases Tzakol is found intermixed with Chicanel. Trace (> than 5%) amounts were found intermixed with Tepeu 2-3 throughout the courtyard area. Intermixed Tzakol and Chicanel were recovered from vertical excavations in the plaza floor, Str. 13 and the midden just north of Str. 14. A comal fragment was recovered from the midden as well as Aguila Orange and Balanza Black sherds. Adams (1984:48) suggest probable functions for Aguila Orange as "Food service, food preparation, cache vessels", while Balanza Black vessels were used as "elaborate service vessels, incense storage containers, and mortuary jars." These types are also considered utilitarian by Sullivan and Sagebiel (2003), however they do show up in tomb contexts as well.

A concentration of Early Classic ceramics was recovered from the southwest corner of Str. 15 (Figures 5.95 and 5.96). The ceramics from this unit consisted of Aguila Orange, Balanza Black, and Fowler Orange-red. Some of the sherds could be refitted to form part of a lid fragment with a possible modeled effigy handle that appeared to extend the diameter of the lid. Some sherds appear to have painted scenes on them (Figures 6.7 and 6.8). The lid is considered to be part of vessel forms typical used as funerary accouterments (Fred Valdez Jr. and Lauren Sullivan, personal communication 2010).

The effigy handle in this case was not as elaborate as effigy head handles from burials and caches at the site of Uaxactun (Smith 1955) and Tikal (Culbert 1993). The lack of a burial, and lack of the vessel itself (only the lid and a variety of large sherds were recovered), is suggestive that it was a secondary deposit (either part of the "special deposit" discussed above or construction fill).

Figure 6.7. Early Classic period ceramic sherds, Suboperation AE.

Figure 6.8. Early Classic period refitted vessel lid

Late and Late/Terminal Classic: A.D. 600–900

Difficulties exist in defining and distinguishing between Early Classic Complex and Early Late Classic ceramics (see Sagebiel 2005 and Sullivan and Sagebiel 2003). Tepeu 1 period ceramics (A.D. 600-700 early Late Classic) are sparse and have not been associated with architectural construction within the Three Rivers Region. They occur in intermixed with either earlier or later ceramic traditions (Sagebiel 2005; Sullivan and Sagebiel 2003). Sagebiel (2005: 739) notes that most early Late Classic (Tepeu 1) ceramics were recovered from middens rather than construction fill, another indication that construction had ceased at the site during the early Late Classic period. An assortment of southern Belize types such as Belize Red and Benque Viejo Polychrome,

Dolphin Head Red flared and Mountain Pine Red basal ridge plates are newly imported into the region (Sagebiel 2005).

Sullivan (2002) considers the similarities in ceramic types, vessel forms and shared motifs as evidence that sites within the Three Rivers Region continued a high degree of interregional integration with Petén sites such as Tikal, Uaxactun and Rio Azul. However, by the Late and Terminal Classic the ceramics from the Three Rivers Region exhibit an increased variability in patterns of distribution and consumption, suggesting changing political alliances and a great decrease in interregional integration. Evidence for this fracture is supported by the increase in the percentage of locally made utilitarian wares and a decrease in prestige vessels (Sullivan 2002:212).

The combination of southern Belize and Petén types and the continued use of Early Classic types created a very heterogeneous Tepeu 1 assemblage making it difficult to recognize and make distinctions about this time period (Sagebiel 2005: 741). At the Los Pisos Courtyard only trace amounts (< than 5%) of Tepeu 1 were found intermixed with Tepeu 2-3 in the midden therefore not much could be said regarding the ceramics from this period at the Los Pisos Courtyard.

According to Sagebiel (2005: 749) the Late Classic II (Tepeu 2) ceramic assemblage corresponds to the LC I (Tepeu 1) assemblage with the continued presence of Southern Belize and the Central Petén influences with a greater influence from the latter. Sagebiel does note a shift (approximately 10% of the average households) to a Central Petén influence with the appearance of polychromes stylistically similar to those of Tikal, Uaxactun and Holmul. These include Palmar Orange-polychrome and Zacatel Cream-

polychrome. At La Milpa, Sagebiel observed the use of Daylight Orange: Darknight Variety and censers. However, she notes the difficulty in the chronological placement and provenance of this type that extends from the Terminal Classic and into the Postclassic period (2005:749: Valdez 1987). Image censers, according to Sagebiel (2005: 749), were most commonly found in hinterland shrines.

At La Milpa and in northwestern Belize, there exists considerable continuity between the Late Classic II and III potting traditions. Sagebiel (2005: 760) attributes this complexity to the approach originally used in Uaxactun, "where Tepeu 3 was based on the subtraction of previously recognized Tepeu 2 types from surface collections" (Smith 1955:13). Sullivan and Valdez Jr. (2004) account for an unclear break between these two periods was do to the lack of Terminal Classic ceramics such as Daylight Orange Darknight Variety, Fine Orange, Plumbate and other Terminal Classic finewares. More recently clear markers that discriminate between the 9th and 10th century, chiefly the fine paste wares, have been recovered at La Milpa and other sites in the region (Zaro and Houk 2012).

At the Los Pisos Courtyard Terminal Classic finewares are absent and ceramic and a division between Tepeu 2 and other Tepeu 3 ceramics could not be achieved. Therefore, they were analyzed and presented as a single time period—Late/Terminal Classic. Making fine-grained distinctions concerning the people and activities taking place as well as architectural construction programs at the Los Pisos Courtyard during this important transitional period is not possible and discussions and interpretations for these two periods are addressed as Late/Terminal Classic period.

Like much of the region, Tepeu 2-3 is the predominant sphere at Los Pisos Courtyard. The presence of Late/Terminal Classic (Tepeu 2-3) ceramics is very strong and its high presence indicates that the highest population levels occurred during this time. Over 80 percent of the ceramics recovered in the Three Rivers Region date to this time period (Kosakowsky and Sagebiel 1999; Sullivan 2002; Sullivan and Sagebiel 2003). Exclusive Tepeu 2-3 proportions make up 63% of the ceramic assemblages and Tepeu 2-3 intermixed with trace amounts (< than 5%) of either Chicanel and/or Tzakol make up almost 32%, therefore I am inclined to say that the Tepeu 2-3 Ceramic Sphere accounts for 95% of the ceramic assemblage for the Los Pisos Courtyard.

At La Milpa Kosakowsky and Sagebiel (1999) confirm that Tinaja Red, Garbutt Creek, Achote Black, Yaha Creek, Cambio Unslipped, Encanto Striated and TuTu Camp Unslipped Groups occur in the largest quantities. This is definitely the case for the Los Pisos Courtyard as well. The majority of the ceramics recovered from the Los Pisos Courtyard, do not exhibit what are traditionally seen as luxury wares or the accouterments of elites, i.e., polychromes and incised black slip luxury wares. The presence of utilitarian wares was documented by LeCount (1999) at the Royal Family Group A, at the site of Xunantunich. Twenty-seven percent of unslipped ceramic groups were documented in the assemblage at Group A. Sullivan (2002) and Sullivan and Sagebiel (2003) established that Late Classic sites within the Three Rivers Region are characterized by an increase in the percentage of locally made utilitarian wares and a decrease in luxury vessels. Though it is possible that ceramics from other sites, including Tikal, were still making their way into the Three Rivers Region. For example, at Las

Abejas Str. 1, material characterization, determined that an Achote Black sherd was imported from Tikal and a Tinaja Red sherd from Altun Ha (Manning 1997).

Elite behavior appears to have been modified during this period. An alternative consumption pattern of more utilitarian in place of luxury wares was observed. At a number of sites (Dos Hombres, Las Abejas and Dos Barbaras) there is an increase of utilitarian ceramics and not "prestige" items (Sullivan 2002). In general, utilitarian and luxury wares are observed in all contexts from large precincts to rural groups (Sullivan 2002: 213). Access to what were once considered exotic material items, particularly markers of elite culture, is also present at other sites. For example at the site of Xunantunich, LeCount (1996, 1999) notes a high degree of similarity in ceramics found in elite and non-elite sites. She argues that this was a part of the new elite-commoner-allegiances formed at the site during the Late and Terminal Classic periods.

The lack of high style vases may indicate that La Milpa's elites were not subsumed as part of the regional political hierarchy of gifting. Perhaps, La Milpa rulers opted out of the existing political hierarchy. Conversely, the slow abandonment process at La Milpa may have allowed for people to take their most precious items. For example, at the site of Aguateca it is believed that the royals had prior knowledge of their demise and removed all their belongings, especially their most valuable possessions, out of the Main Palace before the site was incinerated (Inomata 1995, 1997, 2003; Inomata *et al.* 2002). Many of the artifacts that archaeologists use to establish elite status are missing from the Los Pisos Courtyard deposits. Although there is no evidence of warfare by any stretch of the imagination, I believe that this missing artifact class may be due to a slow

abandonment process. The royals may have had the time and the manpower to remove and take with them their most valuable possessions. The lack of *in situ* artifacts within the palace structures in Plaza B also supports such a scenario (see Zaro and Houk 2012).

The traditional ceremonial ware, i.e., incensarios, was also missing from the assemblage at Los Pisos Courtyard. Perhaps what we think of as strictly "utilitarian," was considered more dynamic by its users—as Brady and Peterson (2008). Sullivan (2002) notes a trend towards more "utilitarian" ceramics in ritual contexts. Sullivan (1997) discusses two Late Classic caches found on the center staircase of the largest structure at Las Abejas consisting of plain bowls.

A similar occurrence is present at the site of Joya de Cerén. Brown (2000) found that Str. 12, probably a ceremonial building and the focus of ritual activity, had a cache consisting of seemingly unimportant used objects. Brown (2000:324) proposes that past and contemporary Maya ritual practitioners collect objects from archaeological contexts to be re-entered into systemic use contexts as personal *sacra,* as an "…alternative strategy to supernatural power, one that exists outside of the control of institutionalized religious systems and ideologies." Brady and Peterson (2008) proposed that these considerations illustrate the potency of what archaeologists typically consider tools or utilitarian objects. For Brady and Peterson (2008) utilitarian ceramic vessels were used and considered more than tools among contemporary and ancient Maya.

At La Milpa only a few examples of polychromes were encountered and they appear to be from a local potting tradition mimicking Saxche and Palmar traditions and/or imported from the Petén (Kosakowsky and Sagebiel 1999; Sagebiel 2005). The

once influential ceramic trading network, is supplanted by more localized ceramic manufacturing traditions throughout the Belize area. This may indicate fractured political relations between the region and the Petén (Sullivan 2002). Evidence for trade wares during this time period includes Belize Red from the Belize River Valley and possible slateware types associated with the Yucatan (Kosakowsky and Sagebiel 1999; Sullivan and Sagebiel 2003). At the Los Pisos Courtyard Belize Red sherds were recovered from throughout the courtyard.

The disappearance of polychromes, the predominant serving ware of local elites, may be attributed to their replacement by black slipped pottery with incising, gouging, fluting and/or grooving, e.g., Cubeta Incised, Chilar Fluted and Torro Gouged-incised (Sagebiel 2005). Adams (1999:89-90) also notes the occurrence of black slipped pottery at the site of Rio Azul. Sagebiel (2005) notes that both elites and non-elites had more access to these types of ceramics compared to polychromes. At the Los Pisos Courtyard 39 Chilar Fluted and 18 Cubeta Incised sherds were found throughout the courtyard area.

To date very few Fine Orange and Plumbate sherds are documented in the region. They occur at La Milpa, Dos Hombres and Chan Chich (Lauren Sullivan, Personal Communication 2010). The small number is indicative of a Terminal Classic occupation in the region. However, it was probably short, perhaps lasting into the early 9th century. For example, Sagebiel (2005:756) suggests occupation past A.D. 830 based on the small quantity of Fine Orange Wares. Hammond and Tourtellot (2004:297-299) come to the same conclusion. They believe that the small number of Plumbate and Fine Orange wares is indicative of an abandonment post-A.D. 830 but not into the 10th century.

However, new radiocarbon dates make it conceivable that occupation at La Milpa lasted into the 10th century. Zaro and Houk (2012) have called for a reevaluation concerning the date for Tepeu 3 ceramics and the length of occupation during the Terminal Classic period in the Three Rivers Region.

Chase and Chase (2004:362) and Ringle (*et al.* 2004:504) show that Fine Orange wares mostly come from elite and /or ritually restricted contexts. It is clear that La Milpa did not fully participate in this elite political and religious status-linked fine ware. Fine Orange Ware and Plumbate were absent from the Los Pisos Courtyard, possibly one of the oldest and important religious spaces at La Milpa. Hammond and Tourtellot (2004:298) do acknowledge that at Tikal and Lamanai Fine Orange wares are scarce, but more common at Rio Azul and Altun Ha. According to Adams (1999:212-213) and Sagebiel (2005) La Milpa, Tikal, Lamanai and Rio Azul had similar proportions of fine paste wares. Therefore the presence of this "status" ware may correspond more with certain centers accepting and others rejecting it, and does not always make accurate chronological markers.

At La Milpa Sagebiel (2005:760) notes the presence of large bowls and basins in a variety of types including Rubber Camp Brown, Achote Black, the orangey Paslow Variety of Garbutt Creek Red, Tinaja Red, and Lemonal Cream. Sagebiel also notes that red tall-neck jars common in the Late Classic were replaced by Lemonal Cream jars. Although the presence of large bowls and jars increases during this period, small serving bowls, particularly Achote Black and other slate ware types, remain common (ibid 2005:

761). For Sagebiel (2005) the increase in bowl and jar size signifies an increase in communal food sharing or feasting and the need for additional food and water storage.

According to Sagebiel (2005:761) increase in vessel size could also be related to the importation of Yucatecan Lemonal Cream and other slate ware jars. Larger bowl size may also represent the introduction of Yucatecan cuisine. Adams (1999: 147) suggests that Yucatecan slate ware jars at Rio Azul represent "the importation of a product from that region - perhaps honey or the prehistoric fermented drink made from it, balche." Ultimately when the Late/Terminal Classic ceramic complex is examined as a whole Kosakowsky and Sagebiel (1999) believe that La Milpa had closer ties with the Yucatecan sites to the north and Belize River Valley to the south, rather than with the Petén sites.

Postclassic: A.D. 900-1500

Postclassic occupation is not incredibly rich in the region; however some sites have evidence of Postclassic veneration or visitation. Postclassic censer fragments have been located at the base of Stelae 2 at Dos Hombres, Group B at the Medicinal Trail site (Houk 1996; Martin 2010). At La Milpa Postclassic veneration or visitation is noted in Plaza A (Hammond and Bobo 1994). Postclassic censors are noted at Stela 7 and 12 (Hammond and Bobo 1994: 23-24). According to Sullivan and Sagebiel, (2003) this pattern is typical for many sites in northern Belize, where Postclassic ceramics in the form of a few smashed censers signals Postclassic pilgrimages to major Classic period centers (Hammond and Bobo 1994).

Chipped Stone Artifacts

Like many lowland Maya sites, lithic artifacts comprise of the second most ubiquitous class of cultural remains at the Los Pisos Courtyard. General excavations from throughout the courtyard complex, including upper most terrace, produced a total 629 lithic artifacts. These artifacts include formal tools, unretouched and retouched flakes, used flakes, fragments (shatter), and obsidian prismatic blades and flakes. A total of 409 flake artifacts, 63 formal tools and 157 obsidian artifacts were analyzed. The obsidian artifacts were analyzed by Dr. Rissa Trachman (2011) of Elon University. The author analyzed the remaining chipped stone artifacts and special finds. Macroscopical analysis was used to determine material types. The analysis was conducted using methods developed by Hyde (2003) for the PfBAP and by The Navajo Nation Archaeology Department, Northern Arizona University (see Dawson 2003). Dr. William Andrefsky Jr., Lithic Macroscopic Approaches to Analysis, 1998, guided both methods. The following literature was also incorporated for the analysis and interpretations concerning lithic artifacts from the Los Pisos Courtyard: Thomas R. Hester and Harry J. Shafer (eds.), *Maya Stone Tools: Selected Papers from the Second Maya Lithic Conference*, 1991 and, more recently, Aoyama Kazuo, *Elite Craft Producers, Artists, and Warriors at Aguateca: Lithic Analysis*, 2009.

The discrimination between formal tools, expedient tools and unused flake artifacts, and shatter (also known as debitage) was the initial step for this analysis (Andrefsky 1998; Parry and Kelly 1987). Accordingly, Andrefsky (1998:75) states that stone tools "are objective pieces that have been intentionally modified or modified by use

to produce a product that has less weight than before it was modified." Tools include biface and non-biface artifacts, such as bifaces, unifaces, cores and utilized and/or modified flakes.

With the exception of arrow points, which come into the record during the later part of Maya prehistory (although exactly when is still up for debate, see Aoyama 2005:300; Inomata 1995: 563; Sheets 1983:201; Porter 1981:407), the stone tool industry based on the literature is flexible and dynamic but fixed throughout Maya prehistory. However, there exist differences in stone tool assemblage from site to site. For example, Aoyama (2009) notes the gap between the number of biface thinning flakes at the sites of Aguateca and Copan. Therefore it is the variation in the relative frequencies of tool forms through time and space that will be used to make interpretations about functional variability and cultural processes that occurred at Los Pisos Courtyard. As previously noted, it is believed that most of the material remains from the Late/Terminal Classic period can be considered a secondary deposit. Therefore, the assessments made from the lithics have to be more generalized and include the ritual precinct (North Group) and its vicinity. However, lithic artifacts behave differently than other artifact classes during site formation process. Additionally, Postclassic lithic artifacts were recovered from the Los Pisos Courtyard, indicating that other lithic material may also be Postclassic.

The two predominant material types that comprise both tool and non-tool artifacts are chert and obsidian. In a broad sense chert from Belize is classified as SiO2 rock that was formed during the Upper Cretaceous to Miocene times (Weiss-Krejci *et al.* 2012). Other siliceous raw materials, such as chalcedony and jasper, were also used in tool

production. There was also evidence for the use of silicified limestone. However, silicified limestone is considered part of the chert family in its compositional properties (Brandl 2010). Quartzite, dolomite and petrified wood were used to a smaller degree (see Barrett 2011). Thermal treatment to increase the knappability of raw material has been documented in Maya lithic assemblages (Barrett 2004; Meadows 2000; Shafer 1983). Thermal alteration was not microscopically explored for this research, however macroscopic analysis showed that only 0.3% of the lithic assemblage from the Los Pisos Courtyard was damaged by heat, e.g., crazing and/or potlid scars (Figure 6.9).

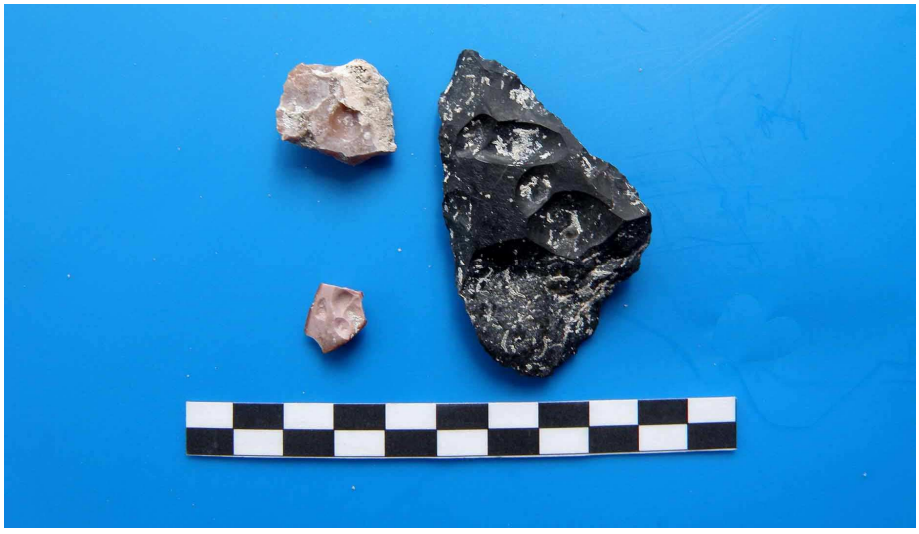

Figure 6.9. Fire affected lithics.

Figure 6.10. Lithic artifact raw material varieties.

Figure 6.11. Lithic artifact raw material varieties.

It is assumed that most of the chert material (Figures 6.10 and 6.11) was obtained from the area surrounding the La Milpa center with the exception of two Late Preclassic bifaces made from Northern Belize Chert (Figures 6.12, 6.13, and 6.14). The two Late Preclassic bifaces may have manufactured and transported in finished form from the site of Colha (see discussion below). However, Northern Belize Chert is found in various residual outcrops, therefore it cannot be verified that these two biface came from the site of Colha. A Late/Terminal Classic biface fragment with large fossil inclusions (Figures 6.15, 6.16a, 6.16b) and a few flakes, also appear to be from outside the La Milpa region.

This source occurs at the Bedrock archaeological site lithic workshop noted by Barrett (2004:396; 2011; Michael Brandl, personal communication 2010). Chalcedonies are believed to be located north of the chert-bearing zone (Hester and Shafer 1984). Due to its poor quality, chalcedony was often found in rubble fill, and not as widely used for formal stone tool production, although flakes were used as expedient tools (Hester and Shafer 1984).

Figure 6.12. Northern Belize chert samples from Rancho Creek and biface tool from the Los Pisos Courtyard.

Figure 6.13. Biface tool made from Northern Belize Chert.

Figure 6.14. Biface fragment made from Northern Belize Chert.

Barrett (2011) argues that the region is rich in chert raw material, e.g., chert boulders in architectural fill and in field chich mounds, chert gravel deposits and large deposits of production waste (Kunen 2001; Kunen and Hughbanks 2003). However, the quality of these raw materials is low and unsuitable for the manufacture of stone tools. Barrett (2011: 63) discusses the exceptionally low quality of chert, chalcedony, dolomite and silicified limestone at the site of La Milpa and the evidence for thermal alteration of all lithic material. The poor quality of the chert is due to its crystalline or fossiliferous inclusions and solution cavities (Barrett 2011). Lewis (2003) proposed limited circumscription for chert resources due to its pervasive nature and unvarying quality within the northern PfBAP region (Lewis 2003). Tourtellot *et al.* (1994) documents the presence of chert quarries, either as secondary residuals or *in situ*, 2 km from the La Milpa center within the survey blocks tested by John Rose (2000). It is believed that the initial stage of acquisition took place at these quarries (Tourtellot *et al.* 1994).

Figure 6.15. Biface fragment possibly made from Bedrock, Blue Creek chert.

Figure 6.16a. Chert raw material from Bedrock, Blue Creek.

Figure 6.16b. Chert raw material from Bedrock, Blue Creek (fossil inclusion).

More recent chert provenance studies, conducted by Michael Brandl, explored the PfB and Colha areas in order to determine the variability in chert outcrops. The goals of these investigations were twofold: first, to make comparisons with lithic material from La Milpa, and second, to conduct geochemical analysis for source discrimination. Geochemical investigations revealed that the majority of chert raw material deriving from the Northern Belizean Chert Bearing Zone (NBCBZ) is distinctly different than material from sources located in the lowland coastal plains of Belize (e.g., Colha). Brandl will present the larger corpus of results in 2014.

Hammond (1997) discusses the numerous chert flakes, 17,000 pieces, encountered over a royal tomb as part of a ritual sequence in Plaza A (Operation B11). They range in color from pure white to pink and even purple, and are of medium to low

quality local chert from a wide range of sources (Hammond 1997). Perhaps the local chert deposits around La Milpa, which are situated within the NBCBZ, were adequate obviating the need to participate in a chert regional trade system to the same degree as Cuello and other sites (Shafer and Hester 1986). Apparently some lithic raw material varieties from the La Milpa catchment area were considered acceptable for stone tool production. However, a majority was used for construction purposes (Michael Brandl, personal communication 2012).

For this analysis, the quality of the material was divided into three categories: poor; intermediate; and good. Granularity was the most predictive marker used to determine quality from rough to coarse-grained to very fine-grained. Fine-grained raw materials are classified as good, due to their good knapping properties and sharper edges. These two variables provide more control during the knapping process (Valdez and Potter 1991). Rough and coarse materials are difficult to work, due to their less predictable fracturing properties and toughness. Raw materials with a coarse to fine granularity were classified as intermediate, while rough was classified as poor. Voids, fossil inclusions, fissures, pre-fracture anomalies and bedding planes also affect the fracturing properties of raw materials. Such variables make chert unworkable (Valdez and Potter 1991). Raw materials containing any of these deficiencies were classified as poor.

Based on their association with Late/Terminal Classic ceramics, most of the lithic artifacts from the Los Pisos Courtyard date to the Late/Terminal Classic period. Additionally, similar to the ceramic material, the recovery context (also referred to as "depositional context": (Moholy-Nagy 1990) of these artifacts should be evaluated.

Although, it has been concluded that most of Late/Terminal Classic ceramic material is a secondary deposit that made its way to the Los Pisos Courtyard (see Archaeological Context section). The dispositional history of the lithic material may be different and is discussed below.

Analysis

The following morphological attributes were examined for tools: artifact type, size, shape (including length, width and thickness e.g., bulb thickness for flake tools), platform preparation, dorsal flake scars, termination, amount of cortical material and material type (Hyde 2003; Dawson 2003). Weight will not be considered here due to the lack of a scale accurate enough to measure the weight of the smaller artifacts, particularly obsidian prismatic blades and small flake artifacts.

Tool Artifacts

A *biface* is a stone tool shaped by the removal of flakes from both faces and shows deep retouches on the surface of the tool. Bifaces can be classified into five types: large biface tools, spears, darts, arrow points and knives (Aoyama 2005). Biface preforms and biface roughouts are also considered in this analysis as well as fragmented and recycled tools.

A *uniface* is a stone tool shaped solely by the removal of flakes from the dorsal or ventral side only and has evidence of lateral retouch. Both whole and fragmented uniface tools are part of this analysis. Cores represent pieces of stone from which flakes have been removed and are subdivided into unidirectional and multi-directional. Lastly,

determining features used to identify flakes tools are intentional retouch and/or wear resulting from use (Andrefsky 1998).

Periods	Biface	Flake Tool	Core Tools	Total/Percentage
Postclassic	4 (10%)	0	0	4(6%)
Late/Terminal Classic	27 (68%)	12 (100%)	6 (60%)	45(71%)
Early Classic	0	0	0	(0%)
Protoclassic	0	0	1 (0%)	1(2%)
Late Preclassic	9 (22%)	0	4 (40%)	13(21%)
Total	40	12	11	63(100%)

Table 6.2. Formal Tools.

Figure 6.17. Oval biface, missing distal end.

Figure 6.18. Oval biface fragment, recycled tool.

Figure 6.19. Oval biface, missing distal tip.

The most ubiquitous tool type recovered through time and space are bifaces with a total of 40 (Table 6.2). Most of the biface tools (N=24) fall into what has been termed the oval biface system in the Maya lowlands (Shafer 1979). This system has been used and readapted by other researchers (see Aldenderfer 1991; Mitchum 1991; Moholy-Nagy 2003a). Although many of the biface tools from the Los Pisos Courtyard were too fragmentary (N=12) to assign type (Table 6.2), oval bifaces are the most common type as is the case for most Maya sites (Figures 6.17, 6.18. and 6.19). Terminal Classic bifaces from La Milpa are thought to be part of a quasi-formal system (Barrett 2011). The oval biface specimens from El Pozito, Belize are believed to have functioned as axes or celts as well as for ground working (agriculture) (Hester *et al.* 1991; Lewenstein 1987:199; Lewis 2003). Use wear analysis indicates that oval bifaces were used in a wide variety of activities including sculpting stone, meat/hide work and shaping wood and shell/bone (See Aoyama 2009; Lewenstein 1987, 1991). The remaining four biface artifacts fall under Postclassic flake points (N=3) and one knife (Figures 6.20 and 6.21) (Aoyama 2005; Thomas 1978).

Figure 6.20. Postclassic period biface point.

Figure 6.21. Postclassic biface knife.

Type	Count	Percentage
Biface Fragments Indeterminate	12	36
Oval Biface	9	22.5
Biface Celt	4	11.1
Lenticular Biface	3	8.3
Parallel-Sided Biface/Chisel	3	8.3
General Utility Biface	3	8.3
Roughout (Oval Biface)	2	5.5
Total	36	100

Table 6.3. Oval Biface System Types from all periods.

The use wear analysis indicates that parallel-sided bifaces (Figure 6.22) have been identified as “pecking and pounding tools” and chisels or gouges used in woodworking (Wilk 1976). The thin/lenticular bifaces from the Los Pisos Courtyard are fragmentary but in size appear more like the lanceolate bifaces from El Pozito, Belize. At El Pozito these were used as knives, rather than dart points as has been suggested for the lenticular bifaces from Colha (Hester *et al.* 1991; Hester and Shafer 1991). Thin bifaces, are

thought to have served as projectile points and knives (Hester and Shafer 1991; Wilk 1976). Use wear analysis shows the dynamic uses of these tools, e.g., slicing/cutting, sawing, scraping, and perforating as well as various wood working activities (Aldenderfer *et al.* 1989; Lewenstein 1987).

Figure 6.22. Parallel-sided biface.

The majority of the bifaces where made from chert material, 85% (N=34). The remaining material used for the production of these stone tools consists of chalcedony 7.5% (N=3) and jasper 7.5% (N=3). Nine of the bifaces appear to have been recycled. Eight have evidence of battering (Figure 6.23). They were probably used as hammer stones, while one appears to have been used as a core. This recycling behavior has been documented throughout the research area and beyond. Barrett (2004) and Hyde (2003) note this phenomenon in the Blue Creek region and at the Medicinal Trail Site. Aoyama

(2005) also observed evidence of battered and crushed bifaces, and notes this recycling behavior at the site of Aguateca.

Figure 6.23. Recycled biface fragment, battering present along the margin.

The second most frequent tool categories are *flake tools* (N=12) followed by *core tools* (N=11). Flakes exhibiting retouch and/or use only on the ventral or the dorsal surface are unimarginal flake tools. Those with modification on both the ventral and the dorsal surfaces are termed bimarginal flake tools. When tools exhibit both unimarginal and bimarginal modification they are considered combination tools (Andrefsky 1998). Minimal or moderate retouching and/or use characterize expedient flake tools. These tools are made for the task at hand and are promptly discarded after one use (Parry and Kelly 1987).

Flake tools with functionally specific forms include scrapers, drills and retouched expedient tools. Flake tools are only present in the Late/Terminal Classic period; this pattern may be the result of more extensive horizontal excavations within Late/Terminal

Classic occupation deposits. Scrapers account for 50% (N=7) of the flake tool assemblage (Figures 6.24 and 6.25). Retouched flakes or expedient tools comprise 36% (N=5), while drills (also know as beaks, perforators and gravers) account for 14% (N=2) of the assemblage (Figure 6.26). Scrapers are thought to be multipurpose tools used for scraping, whittling and smoothing (Lewenstein 1987). Results from Aoyama's (2009:45) study indicate, that scrapers were mostly used for working meat/hide, while drills were equally used for working meat/hide and shell/bone. Drills have been classified as point-retouched flakes that are typically used as awls or gravers at the site of Tikal (Moholy-Nagy 2003). Chert is the material of choice for the production of flake tools. Chert accounts for 92% (N=11), while basalt makes up 8% (N=1). At the site of Aguateca there is a high index of expedient flake tools in both elite and non-elite contexts during the Late Classic period (Aoyama 2011:47).

Figure 6.24. End scraper tool.

Figure 6.25. Composite scraper tool.

Figure 6.26. Drill/perforator tool.

Core tools consist primarily of flake cores (Figure 6.27). Core tools, as defined by Andrefsky (1998:xxii) constitute "a nucleus or mass of rock that shows signs of detached piece removal." It is argued that flake cores are the by-products of an expedient tool technology or retouched tools (Moholy-Nagy 2003). One blade core was also recovered, however only one blade within the non-tool artifacts was documented (Figure

6.28). One hammerstone tool was recovered (Figure 6.29). These are part of the knapping tool kit used in the direct-percussion tool production process and in retouch. Additional hammerstones were also identified, however, they consisted of the recycled broken bifaces (N=8). Seven are part of the Late/Terminal Classic period and one belongs to the Late Preclassic period.

Figure 6.27. Multidirectional core tool.

Figure 6.28. Blade core tool.

Figure 6.29. Core/hammer stone tool.

Non-Tool Artifacts

This category includes flakes and flake fragments that lack evidence of modification and/or use (Figures 6.10 and 6.11). This artifact type is comprised of the

unused byproducts of the biface manufacturing process and core reduction. Flakes recovered from general excavations (i.e., not from burials or caches) can also be considered utilitarian artifacts and/or unused by-products (Moholy-Nagy 2003: 25). Although, Aoyama's usewear analysis shows that many unretouched flakes were used as expedient tools (Aoyama 2009). Various morphological attributes were examined in order to determine flake classes and the stage of tool reduction that produced these flakes, e.g., biface thinning flakes. Non-artifact flakes, flake fragments and shatter were recovered from the Late Preclassic, Protoclassic, Early Classic, and Late/Terminal Classic periods, however this artifact category was most abundant during the Late/Terminal Classic period.

The following attribute list for the examination of non-used flakes was devised by Hyde (2003) for PfBAP and by the Navajo Nation Archaeology Department, Northern Arizona University for analysis of lithics from the American Southwest (see Dawson 2003): length, width, thickness, bulb thickness, raw material type and quality, presence of cortical material, platform and termination. Visual examination established that the majority of the non-tool flakes were produced from chert 321 (78%), while chalcedony represents 11% (N=48), jasper 5% (N=19), limestone 5% (N=19). Unidentifiable materials account for only 2 (1%) of non-tool artifacts. Chert is the predominant material of choice, 78% (N=303), for the non-tool category during the Late/Terminal Classic period. The second most common material, chalcedony, makes up 12% (N=46) of the assemblage, followed by jasper 4.6% (N=18), and limestone 4.6% (N=18). Undeterminable category accounts for only two flakes (.08%).

There appears to be more diversity in raw material choice during the Late/Terminal Classic period. However, this may be due to more extensive excavations within Late/Terminal Classic deposits. Material quality ranged from good to poor. During the Late/Terminal Classic poor quality chert accounts for 18% (N=69) of the unused flake assemblage and intermediate quality for 72% (N=280). Good quality chert comprised 10% (N=38) of the assemblage. Raw material quality predominantly falls under intermediate across time (Table 6.5).

Periods	Chert	Chalcedony	Limestone	Jasper
Late Preclassic				
Protoclassic	75% (N=3)	0%	25% (N=1)	0%
Early Classic	83% (N=15)	11% (N=2)	0%	6% (N=1)
Late/Terminal Classic	78% (N=303)	12% (N=46)	5% (N=18)	5% (N=18)

Table 6.4. Raw Material distribution through time.

Periods	Poor	Intermediate	Good
Late Preclassic			
Protoclassic	0%	100% (N=4)	0%
Early Classic	6% (N=1)	72% (N=13)	22% (N=4)
Late/Terminal Classic	18% (N=69)	72% (N=280)	10% (N=38)

Table 6.5. Raw material quality across time.

Special attention was also paid to the cortex incidence of these non-tool artifacts. Such data can be used to determine whether the flakes are primary, secondary, or tertiary. The use of the "triple cortex" approach (also known as *Stage Typologies*) permits one to examine what type of reduction process was taking place at a particular locale. For

example, primary flakes are thought to result from the earliest stages of lithic reduction, (e.g., initial core preparation or flake production process). *Primary flakes* have more than 50% remnant cortex, while secondary flakes show less than 50% cortex. Secondary flakes, are usually beyond the preliminary stage of the reduction process. *Tertiary flakes* are typically assigned to the latter part of the reduction process because they lack remnant cortical material.

At the Los Pisos Courtyard a total of 387 non-tool flakes were recovered from Late/Terminal Classic contexts. Tertiary flakes comprise most of the assemblage 60% (N=234), *Secondary flakes* are the second most abundant type 32% (N=123), and Primary flakes comprise the smallest number 8% (N=30).

Period	**Primary**	**Secondary**	**Tertiary**	**Total**
Late/Terminal Classic	30(8%)	123(32%)	234(60%)	387 (100%)
Early Classic	1(6%)	2 (11%)	15(83%)	18 (100%)
Protoclassic	0 (0%)	3 (75%)	1(25%)	4 (100%)
				409 (100%)

Table 6.6. Non-tool flake categories according to the reduction process.

Fragmented flakes account for 23% (N=89) of the Late/Terminal Classic assemblage (N=387). These fragmentary flakes precluded the analysis of their striking platform, bulb thickness, termination or original length, width and thinness of flake produced. Nevertheless the above-described measurements were applied to complete flakes for the Late/Terminal Classic period.

The amount of cortical material in conjunction with application load (i.e., hard-hammer, soft hammer and pressure percussion) is also useful in determining early versus late reduction production processes, e.g., core reduction compared to biface production (Cotterell and Kamminga 1987, 1990). It is argued that hard hammer percussion produces larger bulbs of force and is used during the early stages of reduction. Conversely, soft hammer percussion is used during the later more conservative reduction stage and produces flakes with diffused or absent bulb (Crabtree 1972; Jelinek 1966). In order to examine the bulb of force researchers have devised a measurement termed *relative bulb size (RBS)*, the ratio of flake thickness at the bulb to flake thickness at mid-point (Andrefsky 1998:115). Based on the results of an experiment using both hard-hammer and soft-hammer percussion a small *RBS* is produced with soft hammer percussion as a core is being reduced (Andrefsky1998). This pattern is not present with hard hammer percussion (Andrefsky 1998:117). Table 6.7 illustrates a uniform pattern rather than distinctions between bulb thicknesses of the different flake types. Although secondary (<50% cortex) and tertiary flakes (0% cortex) both have smaller RBS when compared to primary flakes (>50% and 100% cortical material). However, the difference is not significant. This illustrates a uniform technological technique for both tool production and core reduction at the courtyard.

Flake Type	Average RBS in mm
Secondary (<50% cortex)	.94
Primary (>50% cortex)	1.12
100% (100% cortex)	1.15
Tertiary (0% cortex)	.94

Table 6.7. Average relative bulb size compared to flake types.

A total of 26 biface thinning flakes; approximately 7 % of the assemblage, and two pressure flakes (.05%) was documented. *Bifacial thinning flakes* are relatively thin and flat flakes typically having small bulbs of percussion on ventral surfaces and lipped platforms. These are associated with the latter stages of biface production (Andrefsky 1998; Raab *et al.* 1979). Pressure flakes are very small in size, weigh less, and are thinner compared to biface and core flakes. Such flakes are produced through pressure rather than percussion technique (Daugherty *et al.* 1987: 92-104). These flakes are associated with the last stage of biface production.

The striking platform of a flake can provide information concerning the technology in play, e.g., whether the flake was removed during the biface production or through core reduction. Typically, biface reduction necessitates a complex faceted platform, while a simple flat platform is used in core reduction (Jelinek 1966:403). Andrefsky (1998:93) opts for a clear-cut, but informative platform typology based on a nominal scale: cortical, flat, complex, and abraded. Complex striking platforms are typically associated with biface reduction technology. Abraded platforms are also used for biface reduction, because they eliminate the uncertainty of the direction of force resulting in a more precise shape of the detached piece (Andrefsky 1998:96).

The flake artifacts from Los Pisos possessed flat, complex and abraded platforms. Of the 298 complete flakes from Late/Terminal Classic deposits, 34% (N=100) have the flat, unprepared, striking platform typically associated with the core reduction process. Flakes with prepared platforms account for 61% (N=183) of this assemblage. Forty-three

percent (N=129) have abraded platforms, and 18% (N=54) have complex (faceted) platforms. The last two striking platform types are associated with tool production rather than core reduction technology. The remaining flakes, 5% (N=14), fall under cortical striking platform and one platform was documented as an indeterminate. Cortical platforms result from the initial core reduction stage.

Relative bulb sizes (RBS) were also compared against striking platform types. The results are representative of a standardized technology with little differentiation between the different striking platforms and RBS (Table 6.8). Dorsal cortex quantity was also compared with striking platform. The two platforms associated with tool production, complex and abraded, exhibit little or no cortical material on the dorsal surface. Of the 54 flakes with complex platforms, 56% lacked cortex while 35% had less than 50% cortex, a pattern that is suggestive of biface tool reduction. Abraded platforms follow a similar trend with 65% of the flakes lacking cortical material and 26.3% showing less than 50% (Table 6.9).

Striking Platform Type	Amount	Average RBS mm
Cortical	5.0% (N=14)	.96
Flat	33.5% (N=100)	1
Complex (faceted)	18.0% (N=54)	1.2
Abraded	43.2% (N=129)	.97
Indeterminate	.3% (N=1)	not calculated
Total	100% (N=298)	

Table 6.8. Striking platform for Late/Terminal Classic non-tool flakes.

Striking Platform	No cortex	<50%	>50%	100%	Indeterminate
Flat	54% (N=54)	35% (N=36)	9% (N=9)	1% (N=1)	0% (N=0)
Complex	55% (N=30)	35% (N=19)	9% (N=5)	0% (N=0)	0% (N=0)
Abraded	65% (N=84)	26.3% (N=34)	8% (N=10)	.7% (N=1)	0% (N=0)
Cortical	0% (N=0)	43% (N=6)	21% (N=3)	36% (N=5)	0% (N=0)
Indeterminate	100% (N=1)	0% (N=0)	0% (N=0)	0% (N=0)	0% (N=0)

Table 6.9. Platforms and cortical material

Late Preclassic

A total of 13 formal tools was recovered from excavations dating to the Late Preclassic period: nine bifaces and four core tools. All, with the exception of one biface, were broken and/or fragments. These tools were recovered from a variety of contexts: a probable cache; a funerary chamber; an activity area; and construction fill. A multi-directional core and chert flakes were recovered from the Late Preclassic chultun burial chamber. The role of this tool and other chert artifacts is not clearly understood at this time. Perhaps these chipped stone artifacts were used during the burial ritual and /or post-burial reentry discussed in Chapter 7. A parallel-sided biface fragment was recovered from a Late Preclassic activity area on the first living surface in the Los Pisos Courtyard. Nine tool artifacts consisting of cores and oval bifaces were recovered from construction fill contexts.

One of the biface fragments had evidence of battering implying that this biface fragment was recycled and reused as a hammerstone. The tool kit recovered from the Late Preclassic period at Los Pisos is much less diverse when compared to the Late/Terminal Classic period, e.g., the lack of flake tools. However, this may be a

pattern produced by limited horizontal excavations within Late Preclassic occupations. A handful of flakes from the chultun chamber remain to be analyzed. The unused flakes for this period were not analyzed due to their small number. Therefore, very limited information concerning the resharpening and/or the production of tools and/or core reduction is known for the Los Pisos Courtyard during the Late Preclassic Period.

Northern Belize Chert

Two oval bifaces deposited by the first occupants of La Milpa were recovered beneath the first plastered surface directly below the eastern terrace of a Late Preclassic structure. Their location beneath a structure is suggestive of a cache deposit. However they were not placed in a container and were within a dark organic soil, which also contained carbonized wood, a bird bone and other lithic and ceramic artifacts. Such remains are typical of a midden deposit. One of the bifaces was nearly complete while the second was a partial fragment that appears to have been recycled for flakes (Figures 6.12, 6.13, and 6.14). Typically, complete artifacts are indicative of caching or offertory behavior. Why would a nearly complete biface be thrown away, especially when fashioned from highly valued Northern Belize Chert (Michael Brandl, personal communication 2009)? This chert clearly represents a valued resource since the fragmented bifaces appeared to have been recycled for flakes. Perhaps the bifaces were placed as offertory items within the midden/construction fill.

Colha, Belize is adjacent to an inexhaustible source of fine-grained chert, Northern Belize Chert, in the form of large out cropping nodules. It was an important

producer of chert tools and a major distributor of standardized chert tools as early as the Late Preclassic periods and into Postclassic times (Hester 1989; Hester and Shafer 1994; Shafer and Hester 1983:540). As of 1992 a total of 89 lithic workshops have been identified of which 32 date to the Late Preclassic period (Hammond 1992).

Lithic tools believed to have originated from the site of Colha have been recovered from sites as far away as El Mirador and Uaxactun, suggesting a wide distribution network (Hammond 1992). Two standardized tool types, oval bifaces and the tranchet-bit tool, as well as tool blanks were brought in from Colha as finished products to other sites (McSwain 1991:338). At Blue Creek, 40% of bifaces dating to the Early Classic come from the Colha workshops, but this number significantly drops to only 19% during Late Classic times (Barrett 2004, 2011). It has been documented that between 50 and 60 percent of Preclassic tools and debitage at Cuello are made of Colha like material, perhaps indicating a strong trade relationship between the two sites (McSwain 1991:340). However, there are outcrop distributions of Northern Belize Chert throughout the area, making it likely that Cuello independently collected and made tools from this material. Nevertheless, when chert tools made of Northern Belize Chert are recovered it is assumed that they where made by Colha craft specialist.

At La Milpa, the use and procurement of Northern Belize Chert has only recently been documented (Fred Valdez Jr., personal communication 2012). The two Late Preclassic bifaces from the Los Pisos Courtyard are the only items made from Northern Belize Chert. This perhaps indicates that La Milpa did not participate in procurement and use of Northern Belize Chert and/or the Colha network exchange system (see McSwain

1991). Sites considered consumer sites: Cerros and Cuello as well as sites from around Pulltrouser Swamp, are between 30 and 40 km from Colha (Freidel 1979; McAnany 1986: McSwain 1991). These distances may have made it easier to participate in this trade network and/or to extract the chert for use. For example at Cuello there is evidence of Colha chert prior to the development of Colha's chert workshop industry.

McAnany (1986) estimates that the circulation sphere for the sedentary agricultural Maya lowlands chert tool network is >3,000 km^2, placing La Milpa right at the periphery of Colha's chert tool network, which has a maximum radius of approximately 40-60 km (McAnany 1986). Hammond (1992) proposes a trading network of 40 km, however Colha goods were recovered from communities more than 160 km distant, and have been found as far as 500 km away at the site of Chiapa de Corzo (Hester and Shafter 1994:59). In ancient times La Milpa was likely on the periphery of the Colha chert network-trading sphere depending on what route was used. Using Google Map, La Milpa is approximately 60 km from Colha if traversing the landscape using today's current road system. If traveling without a modern road system, La Milpa is at least 100 km from Colha. Perhaps the local chert deposits around La Milpa (Tourtellot *et al.* 1994; Hammond 1997) were adequate for the tasks at hand and there was no need to participate in this regional trade network and/or procurement Northern Belize Chert.

Protoclassic and Early Classic Periods

One Protoclassic occupation phase also produced a very small number of flakes (N=4) and one core tool. These lithic artifacts were all recovered from within and around what has been interpreted as a ritual burning hearth. The small number of lithic artifacts also makes it difficult to make interpretations about the technology of the Protoclassic period at Los Pisos Courtyard. Stone tools were absent from Early Classic occupations while 18 unused flake artifacts were recovered from construction fill.

Late/Terminal Classic Period

The artifacts, both tool and non-tool, for this period was mostly recovered within a secondary "problematic deposit." Although the lithics from this time period are all intermixed with datable ceramics (Tepeu 2-3) four of the tools, three blade points and one knife stylistically date to the Postclassic period. Evidence for Postclassic occupation at La Milpa has been documented in the southern plazas, Courtyard 100 (Zaro and Houk 2012) and a Postclassic "squatter's" just outside the Los Pisos Courtyard (Hammond and Tourtellot 2004:300). Schiffer (1983) observed a significant amount of post-depositional movement of artifacts into different geological layers, specifically lithics, during a refitting experiment conducted by Villa (1982). Therefore, it is plausible that some of the lithic artifacts date to the Postclassic period and are intermixed with Late/Terminal Classic lithics and ceramics. The lack of Postclassic ceramics in the Los Pisos excavations is suggestive not of occupation, but perhaps hunting groups that were passing

through and using this space to resharpen their tools and/or to produce bifacially retouched tools from flakes. However, this is only a conjecture.

Thirty-six of the stone tools, nine flake tools, 20 biface tools and six core tools were all located within the Late/Terminal Classic secondary deposit. Three oval biface celts and one parallel-sided biface were complete enough to have been in use. Ten of the bifaces were very fragmentary; seven had battered edges and were recycled as hammerstones. One biface fragment had been recycled as a flake core. Since nearly half of the bifaces were recycled it is not certain if the last occupants of La Milpa recycled the bifaces or if they were seen as fortuitous and advantageous finds by Postclassic ephemeral occupants (see Schiffer 1976). In any case the presence of hammerstones indicates that some level of tool reduction process was taking place at La Milpa, e.g., biface production or expedient tool manufacture as the need arose. The presence of five cores, three multidirectional and two unidirectional cores, points towards core reduction. Three scrapers, three expedient retouched flake tools, one utilized flake and two drills were also recovered from the secondary Late/Terminal Classic deposit.

Biface thinning flakes account for only 7% of the non-tool flake assemblage, a much smaller number when compared to other lowland Maya sites. For example, large proportions of biface thinning flakes were documented within the site core of Aguateca (24.2 %: N=925) and Piedras Negras (Aoyama 2011), indicating that the production of oval bifaces and bifacial points was significantly greater within the site center at Aguateca. The percentage of biface thinning flakes at Los Pisos is so low that we may conclude that, within this sector of La Milpa, biface production did not occur. At the site

of Aguateca, Aoyama (2011) determined that biface thinning flakes were most often used for processing meat/hide (51.7%) followed by working shell/bone (32.2%).

Discussion

Unretouched flakes and/or flakes lacking use-wear, N=286, are a significant component of the assemblage. These flakes did not show evidence of heavy use wear. Microscopic analysis is necessary for detecting microscopic retouch or polish from working soft material like meat/hide or vegetal material. Conversely, one may be able to detect heavy use wear (bone, shell, and stone carving) macroscopically. There exists an over representation of tertiary flakes, 65% (N=186). Secondary flakes account for 30% (N=85) of the assemblage, while primary flakes only comprised 5% (N=15) of the total non-tool artifacts. The high number of secondary and tertiary flakes is an indication that later stages of tool production (resharpening and/or multidirectional core reduction) were taking place (Tomka 1989:141). Tomka (1989) states that tertiary flakes are produced most abundantly by dart point manufacture, followed by biface production and multidirectional core reduction.

In Tomka's (1989) experiment secondary and primary flakes were by-products of both biface production and core reduction. There exist a number of flint knapping experiments (see Amick and Mauldin 1989) many of which are used to differentiate between tool production, particularly biface production, and core reduction. However, these experiments have produced mixed and sometimes even contradictory results. From

personal experience this is most likely a result of the raw material quality and the skill of the knapper.

The most consistent attributes for differentiating between tool productions are platform preparation, the absence of dorsal cortex, and the number of dorsal scars. The presence of biface thinning and pressure flakes is also indicative certain production techniques. It appears that tool production, resharpening /artifact retouch, and core reduction were taking place at La Milpa. Two hundred and twelve flakes had measurable platforms. Sixty-one percent of the 212 had prepared platforms. As previously mentioned prepared platforms are indicators of tool production or a knapping strategy used to produce a more accurate objective piece. Cortex was also measured against striking platform and both variables produced similar results (See Table 6.10). Forty-three percent can be classified as tertiary flakes with prepared platforms, once more supporting evidence for biface tool production and/or rejuvenation (Odell 1989; Tomka 1989).

Platform	<50%	>50%	100%	0%
Cortical	50%(N=6)	17%(N=2)	33%(N=4)	0%
Flat	40%(N=28)	4%(N=3)	0%	56%(N=40)
Complex	21%(N=6)	3%(N=1)	0%	76%(N=22)
Abraded	22%(N=22)	9%(N=9)	0%	69%(N=69)

Table 6.10. Striking platform and cortex.

According to Aoyama's research at Aguateca tertiary flakes were utilized most often compared to primary and secondary flakes, perhaps because tertiary flakes do not

have cortex on the edges. Many unretouched flakes (21% at Aguateca) were used as informal tools. Most (56.3%) were used for meat and hide processing, e.g., for cutting meat and scraping and boring hide (Aoyama 2009). Moholy-Nagy (2003a) also proposes versatility of unretouched flakes.

The over-representation of tertiary flakes and low representation of primary flakes suggests that much of the raw material came in the form of flake cores or biface blanks. Tools such as bifaces, cores, and hammerstones and tool production by-products are all part of the lithic assemblage at the Los Pisos Courtyard. Primary, secondary and tertiary flakes as well as shatter should also be included in the Los Pisos Courtyard lithic assemblage. It is clear that the production and tool refurbishment that was taking place. However, it is not clear if it was Postclassic people or Late Terminal Classic occupants of the Los Pisos Courtyard. Adding to the complexity is the fact that these tools may be part of a secondary deposit.

At the site of Aguateca Classic Maya elites produced utilitarian goods for domestic use (Aoyama 2009). Chert chipped stone artifacts provide evidence that some nobles, including scribes and/artist from the site of Aguateca, were stone knappers manufacturing utilitarian tools part-time (Aoyama 2009:43, 131). It has also been proposed that nonresidential servants were producing these tools. The manufacture of expedient tools in both elite and non-elite contexts was documented in significant quantities at the site of Aguateca (Aoyama 2011). Therefore, it is likely that the occupants and/or residents of La Milpa were engaging in such forms of lithic tool production.

Obsidian

The analysis of obsidian artifacts recovered from the Los Pisos Courtyard was conducted by Dr. Rissa Trachman (2011) of Elon University. Trachman used a method devised by Clark and Bryant (1997). The author made interpretations concerning the obsidian artifacts themselves. At many Maya lowland sites obsidian arrived as large polyhedral cores or macrocores (Moholy-Nagy 2003b; Sheets 1975). This is also probably the case for La Milpa as well. At Los Pisos Courtyard a total of 157 obsidian artifacts was recovered between 2007 and 2009. Trachman (2011) described the majority, 150, as third series pressure blades, also known as prismatic blades (Figures 6.30 and 6.31). The associated ceramics indicate that the majority of the obsidian artifacts, 98%(N=154), date to the Late/Terminal Classic period, 1.3% date to the Late Preclassic period (N=2) and 0.7% date to the Early Classic period. However, as noted in the chipped stone artifacts section, lithic materials have complex depositional properties and we must consider that they may be the result of Postclassic activity that became intermixed with Late/Terminal Classic ceramics. Nevertheless these artifacts were found in association with Late/Terminal Classic ceramic types and therefore date to this period.

Figure 6.30. Obsidian blade and flake fragments.

Figure 6.31. Obsidian blade fragments.

A blade refers to a parallel-sided artifact that is twice as long as it is wide (Figure 6.32) and was removed from a specially prepared core while (Crabtree 1972:42-47). Prismatic blade fragments are known to be the most ubiquitous finished obsidian artifacts from as early as the Middle Preclassic and into early Postclassic times (Moholy-Nagy 2003). One hundred and fifty blades, two first series pressure blades, two second series pressure blades, one platform rejuvenation flake, one distal core rejuvenation flake, and one pressure flake comprise the obsidian assemblage (Trachman 2011).

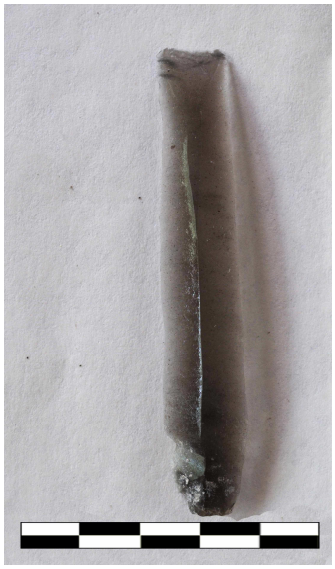

Figure 6.32. Obsidian blade (missing distal tip).

Although all the obsidian artifacts lack a natural surface, the presence of second and first series pressure blades, platform and core rejuvenation flakes, and a pressure flake may indicate that some level of reduction occurred at La Milpa (Aoyama 2007; Braswell and Glascock 2011). This artifact number is too small to provide a representation of prismatic blade technology at Los Pisos Courtyard or, for that matter, at the site of La Milpa. However it does suggest that the polyhedral blade cores required trimming and more reduction. If such reduction strategies were employed by the elites of La Milpa, then the procurement and allocation of obsidian at La Milpa was under elite control, a pattern also noted by Aoyama (1994, 2007), Clark (1988) and Sheets (1983). It is also possible, as Aoyama (2009) has suggested that producers visited the site and made tools on demand.

Artifact type	Count
Prismatic blade fragments	96%(N=150)
Second Series Pressure blade	1.27%(N=2)
First Series Pressure blade	1.27%(N=2)
Platform rejuvenation flake	.5%(N=1)
Core rejuvenation flake	.5%(N=1)
Pressure flake	.5%(N=1)

Table 6.11. Obsidian artifacts.

Prismatic blades were used for a multitude of utilitarian tasks such as working wood, hide, shell and bone, and for cutting meat (Aoyama 2009; Lewenstein 1981; Moholy-Nagy 2003b). By Classic times it is clear that obsidian was used by everyone and appears in all types of residential deposits. During the Early Late Classic period obsidian flakes were also fashioned into ceremonial objects such as eccentrics and incised flakes evidence at Tikal (Moholy-Nagy 1989, 2003b). Specialists are thought to be responsible for the production of obsidian artifacts, which were redistributed through a market system, while the elite commissioned the manufacture of ceremonial objects (Moholy-Nagy 2003b).

Many of the obsidian prismatic blades recovered are fragments: N=105 medial segments; N=38 proximal; and N=5 distal. Trachman (2011) also noted that macroscopic edge wear data are consistent with the average domestic deposits. However, the prismatic blades and fragments from context A2-K-4 had no visible macroscopic edge wear. Although microscopic usewear was not conducted, Trachman (2011) notes the possibility of microscopic wear on the three blades from A2-K-4. These three blades (Figure 6.33) were recovered from the eastern axial façade of Str. 15. Their length and

near completeness is suggestive of blood letting implements or a symbolic reference to blood letting. These blades were probably part of a termination cache and may have been wrapped or tied in perishable material.

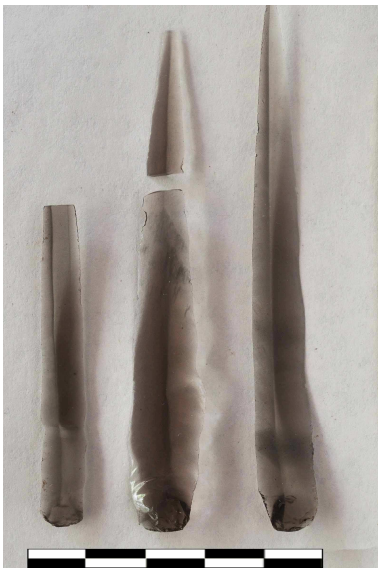

Figure 6.33. Obsidian blood-letting implements.

Aoyama (2007) notes, that most of the blades at Aguateca were purposefully snapped into two or three segments for a variety of uses. Others believe that the blades were purposely snapped or ritually "killed" prior to being deposited (Reents-Budet and MacLeod 1997:64). For Aoyama (2009) artifact length and width equate purchasing power, e.g., those who could afford stronger obsidian blades had more purchasing power. At Los Pisos Courtyard artifact mean length (2.07 cm) and width (1.08 cm) fall within the smaller end of the blade fragments from Aguateca. Medial fragments tend to

dominate the Los Pisos Courtyard, Aguateca and Medicinal Trail Site. At Kaminaljuyu both medial and proximal segments are found in equal amounts (see Aoyama 2007, 2009; Hirth 2003; Hyde 2011). Microscopic usewear analysis at Aguateca indicates the medial fragments were used for domestic tasks and craft production, e.g., cutting meat/hide, whittling wood and scraping hide.

As has been noted by others (compare Aoyama 2009; Moholy-Nagy 2003b), obsidian was probably imported into La Milpa as large polyhedral cores, which were subsequently reduced into prismatic blades, prismatic blade cores and exhausted polyhedral cores (Aoyama 2009; Moholy-Nagy 2003b). At the Los Pisos Courtyard this argument is supported by the lack of cortex on finished artifacts and the fact that 96% of the obsidian artifacts recovered are in the form of prismatic blade fragments. Percussion-related core-reduction by-products are nearly absent. Although no polyhedral cores were recovered from the Los Pisos Courtyard deposits, other variables point in the direction of the importation of finished polyhedral cores to La Milpa. Graduate student Debora Trein recovered exhausted polyhedral cores from Str. 3 in 2010.

In many lowland Maya sites, trace element analysis, x-ray fluorescence (XRF) and neutron activation analysis (NAA) are used to identify the chemical composition of obsidian sources. Three known sources from the Guatemalan Highlands, El Chayal, Ixtepeque and San Martin Jilotepeque, are the most well known. A significant shift from the use of Ixtepeque to El Chayal occurred during the Late Preclassic to Late Classic periods. This shift is reported at many sites, e.g., Aguateca, Tikal, Calakmul, Palenque and Colha (Aoyama 2009; Braswell and Glascock 2011; Brown et al. 2004; Johnson

1976; Moholy-Nagy 2003b). Therefore, is probable that the obsidian recovered from the Los Pisos Courtyard was imported from El Chayal. In the Maya lowlands there is also evidence of obsidian from the Mexican highlands (Pachuca, Otumba and Zaragoza), which in addition to trace element analysis, is distinguishable due to its green color. These Central Mexican sources have been identified at Tikal and Aguateca (Aoyama 2006, 2009; Moholy-Nagy 2003b) from the Early Classic period and the Terminal Classic.

Although only XRF and NAA can determine the exact source location, all of the obsidian from the Los Pisos Courtyard reflects the colors and granularity typically associated with the Guatemalan Highland sources. However, Braswell and Glascock (1998) and Moholy-Nagy (2003b) regularly report failure rates for visual sourcing, particularly with gray obsidian, thus only instrumental methods can produce the most reliable results.

Small Finds/Miscellaneous Artifacts

This artifact class consists of artifacts that fall outside the limits of the general artifact categories, e.g., ceramics and lithics. In line with Buttles (1992, 2004) and others (Garber 1981; Sheets 1978) *small finds* is an arbitrary category that includes artifacts from a variety of raw materials (shell, slate, modified stone, formed clay). All finds were recovered in association with Late/Terminal Classic ceramics with the exception of a small carved shell fragment recovered from the Late Preclassic chultun tomb, and a slate fragment recovered excavations at the base of Str. 14. The small finds assemblage

represents a variety of exotic and sumptuous goods. However, as previously noted La Milpa is not a material rich site. While elites do participate in the use of materials representative of the elite sub-culture, they are often small recovered in small quantities. The Los Pisos Courtyard seemed to be missing many of the material elements typically associated with the elite. This has always been a perplexing negative line of evidence.

Items of Beautification

The first artifact class falls within the adornment class or in what has been termed beautification, "the social marking of the body as desirable and the person as 'persuasive' to others" (see Joyce 1999:19). Five items (two beads, a ceramic labret (lip ring) and 2 marine shell ornaments) all fall within this classification. It is believed that shell artifacts, both marine and freshwater, functioned as ornaments. Shell ornaments represented insignia of rank and ritual objects–also noted as "social" artifacts (Moholy-Nagy 1994, Moholy-Nagy with Coe 2008). One of the shell ornaments measures approximately 2 cm in diameter and has suspension holes, one in the center and three around the artifact's edge (Figure 6.34). This artifact falls within the shell disk (perforated plain) category proposed by Buttles (2004). Although the exact function is not clear, it may have been used as a rosette that functioned as an earplug plate (Buttles 2004). Plain perforated shell disks may also have functioned as pendants, inlay or throat plates for earplugs. However, the four-drilled perforations on the outer edges may indicate that is was a sewn-on ornament (Hammond 1991b; Kidder 1947; Moholy-Nagy with Coe 2008). The second ornament, possibly a long slender implement, was too small

to determine function, but its presence within the chultun tomb indicates that non-perishable artifacts may have been present at the time of burial and curated during a re-entry ritual (see discussion in Chapter 7).

Figure 6.34. Shell ornament.

Interpretations of cosmology and iconography discuss the potency of marine shells, such as *Spondylus* sp. and *Strobus* sp., in Maya society. They often represent symbolism concerning rain, fertility and Maya deities such as God N and Mam, the earth god (Aizpurúa and McAnany 1999). The ownership of such items activates social and political power. At the site of Tikal, Moholy-Nagy (1994:93-106) correlates the value placed on a raw material with different levels of social status where artifacts with a high level of craftsmanship appeared in higher status assemblage

A small shell disk bead (1 cm in diameter) with evidence of red pigment and a sub-spherical ceramic bead approximately 1.5 cm in length and width were also located within the Los Pisos Courtyard (Figures 6.35 and 6.36). Beads are commonly used in

necklaces, bracelets and earrings (Aizpurúa and McAnany 1999). The ceramic bead did not have evidence of slip or surface decoration and appears to have been perforated prior to firing. Buttles (2004) notes, that similar ceramic beads are reported in the Maya highlands and lowlands as well as the Maya periphery site of Chalchuapa. At Altar de Sacrificios ceramic beads were coated in stucco (Willey 1972:88, Figure 72).

Figure 6.35. Shell bead.

Figure 6.36. Ceramic bead.

A ceramic labret was recovered at the southeast corner of Str. 15 (Figure 6.37). This ornament is used as lip or ear finery and is composed of two parts, a shank and a spike, the spike serving as the decorative element, while the shank is the vertical segment

that may determine where it is placed on the body (Buttles 2004). The length of the shank is approximately 2.5 mm indicating that it was likely used as lip plug. There was no evidence of slip, but the spike has a cog-like design, similar to the shell and pottery ear labrets from Tikal's Minor Burials and Uaxactun (Kidder 1947:65; Moholy-Nagy 1994:165; Moholy-Nagy with Coe 2008). At Tikal this ornament style, small pipe-shaped, replaced the large earflare ornaments during the Early Late Classic period (A.D. 550-700).

Figure 6.37. Ceramic labret.

Modified Stone.

This category consists of a limestone plate/disk fragment and four "doughnut stones" as they are referred to in the literature. Multiple interpretations have been proposed for such disks, e.g., a pot rest for the cooking or boiling of food or liquids, or as censer supports or rests for the burning of incense (Garber 1981:87). At Cerros they are

found in association with ritual paraphernalia (e.g., censers and copal) and marl indicating that they may have been used in abandonment and termination rituals (Garber 1981:68).

The fragment recovered at Los Pisos Courtyard did not have evidence of burning and had a red pigment on the inside and outside surfaces (Figures 6.38 and 6.39). It is not known how stone disk are made, but the fragment in question showed great craftsmanship with a beveled edge on the outside and may have been made by grinding, although the limestone looks pocked and pecked. The diameter of the disk is not known however the thickness, 1 cm, corresponds with the thickness of the unburned disks recovered at Cerros (Garber 1981:66). It is proposed that unburned disks at Cerros functioned as portable ball court makers (Garber 1981:70). However the hachas that Garber (1981) discusses from the Late Classic Gulf Coast, e.g., Vera Cruz, are elaborately carved head disks and do not appear to correspond with the disk fragment found at Los Pisos.

Figure 6.38. Stone disk, interior.

Figure 6.39. Stone disk, exterior.

Initially recognized at the site of Uaxactun (Ricketson and Ricketson 1937), doughnut stones are widespread in the Maya region. Their occurrence has been noted, mostly in household contexts, from the Late Preclassic to the Classic periods (Garber 1981; Hammond 1975; Kidder 1946; Moholy-Nagy 2003a; Tomasic 2012; Willey 1972). This artifact type ranges from expedient roughly shaped disk stones with a central perforation to skillfully crafted round disks with deity- and animal-face carvings and pigment.

They are thought to function in a variety of activities based on their form and craftsmanship, e.g., digging stick weights, maize shellers, metate supports, counter weights for doors, perforated mortars, architectural elements such as armatures, banner holders, club heads, spear shaft weights and, more recently, whorls for thigh-supported spindles (Anderson 1985; Garber 1981; Kidder *et al.* 1946, Inomata 1995; Moholy-Nagy 2003b; Tomasic 2012; Sheets 1979, 2002, 2006; Willey 1972). The function of doughnut stones can be dependent on the size of the central perforation, raw material type and quality, size, presence or absence of decorative elements and craftsmanship. These round

stone artifacts with central perforations come in a variety of shapes and sizes and were made from a variety of raw materials for a variety of activities.

At the site of Aguateca doughnut stones were found in association with manos in Str. M8-4 suggesting that these implements may have served as metate supports as described by Searcy (2011). However Inomata (personal communication 2013) believes that they served as grinding implements. At Ceren doughnut stones were found in-situ in a milpa field and a structure near one of the milpas (Sheets 1979). These two contexts indicate that these particular artifacts served as domestic implements related to food production and preparation. Garber (1981) argues that doughnut stones recovered in domestic debris most likely functioned as digging stick weights. However, similar implements were used as architectural elements at other sites.

Three doughnut stones/perforated disks were observed on the surface near the western and northern façades of Str. 14; however these artifacts were not brought in from the field or cataloged. They are similar to those from the sites of Cerros, Palenque, Tikal and Uaxactun. However at the site of Tikal and Palenque they are thought to have functioned as cord holders and at Cerros as architectural elements or digging stick weights depending on the context from which they were recovered (Anderson 1985; Garber 1981; Moholy-Nagy 2003b: Figure 112).

At Tikal they are thought to have served as cordholders (Moholy-Nagy 2003b). These doughnut stone cord holders were not found embedded in structure walls and are larger (20-30 cm) than the ones observed at Los Pisos Courtyard (12-15 cm). Moholy-Nagy (2003b) also proposes the possibility that they were perhaps used to hold doorposts.

The size of the doughnut stones from Cerros (diameter 12.4-6.3 cm) is more in line with the size of doughnut stones observed in the Los Pisos Courtyard. However the central perforation and thickness of the doughnut stones at La Milpa (perforation approximately 2.5 cm) were larger than the artifacts from Cerros (1.6 to.5 cm) and are closer to those from Tikal.

It appears that the three doughnut stones from the courtyard were likely used as architectural elements or cordholders based on the context from which they were observed. Cordholders were used for tying the fabrics and matting, perhaps behind a bench and occupant, to partition off areas of a room, or to cover external doorways (Anderson 1985). At Palenque Anderson (1985) observes that all cordholders are made of stone and look similar to those found at the Los Pisos Courtyard. They were recovered only from palace structures (Anderson 1985). At Tikal similar donut stones were recovered from different group complexes (Moholy-Nagy 2003). The distribution of cord holder at the site of Palenque indicates that they served to create privacy, particularly during times of ritual, and perhaps they served a similar function at Str. 14– the group shrine (Anderson 1985).

A second variety of doughnut stone made of silicified limestone was recovered from unscreened excavations in Suboperation A (Figures 6.40 and 6.41). It measures 6.1 cm high and the perforation diameter in the center measures 1.5 cm in midsection, 1 cm near the top. The initial drilling area was the widest measuring 2 cm, probably due to the drilling method (conically drilled). It was also skillfully crafted from a very fine

limestone and its ornamentation (a black pigment band approximately 2.5 cm) was painted. The diameter was not established due to its fragmented state.

Figure 6.40. Silicified limestone doughnut stone (interior).

Figure 6.41. Silicified limestone Doughnut stone exterior (black pigment band).

This modified stone appears similar to modified stones identified as doughnut stones at Tikal (diameter 6.8-7.1 cm and thickness 5-5.4 cm), however the central perforation is much larger on the Tikal artifacts. The doughnut stones from Tikal are believed to have functioned as mace heads rather than digging stick weights (Moholy-Nagy 2003b). The doughnut stone from the Los Pisos Courtyard may also have been part of war costume regalia. However Maya iconography depicting warrior scenes show individuals with shields, spears, atlatls and other items but clubs are missing. Tomasic (2012) calls for more incorporation of women's activities when making interpretations for artifact use. For example he recently proposed that doughnut stones functioned as spindle whorls, particularly the doughnut stones from Ceren. At the site of Ceren doughnut stones were modified with vertical grooved motifs (Sheets 2000).

In North America this artifact class is often part of the funerary furniture and is thought to be a magico-religious artifact as well as a secular object (see Koerper *et al.* 2010). The central perforation of the doughnut stone in question was quite small making it difficult to find a matching function based. Perhaps this variety of doughnut stone may have served as a curtain pull and/or or a curtain weight used to keep fabric or matting in place (Fred Valdez Jr.; Michael Brandl, personal communication 2009).

One ground stone fragment was recovered from the Structure's 13 terrace (Figure 6.42). The fragment appears to be the sharp beveled corner/edge of a slab metate made from siliceous limestone (Moholy-Nagy 2003b: 40). This was the only artifact representative of food preparation recovered from the Los Pisos Courtyard.

Figure 6.42. Ground stone fragment.

Formed Clay

Three items recovered from Str. 15 fall within this category: a small architectural element with a spiral design, a fragment of a miniature incensario, and what is presumed to be a fragment of a candelero. The design on the architectural element is similar to a design found on a ground stone architectural element found at Tikal (Figure 6.43) (Moholy-Nagy 2003b, Figure 88b). The internal diameter measures 2.5 cm, the outer diameter including the rim is 4.5 cm and it is 5.5 cm in height (Figures 6.44 and 6.45). The candelero falls within the A variety at Tikal (Moholy-Nagy 2003b: 49 Figure 141G). The third item, an incensario has an anthropomorphic shape of a human face with appliqué, the sex of the person depicted could not be established. An ear with ear spools was visible in profile. Remnants of red slip are also present (Figure 6.46).

Figure 6.43. Small decorative element.

Figure 6.44. Plan view candelero fragment.

Figure 6.45. Candelero fragment.

Figure 6.46. Miniature incensario.

Minerals

A small fragment of raw slate (Figure 6.47) dating to the Late Preclassic was recovered from the same lot as Burial 3. Slate was present in Maya sites by the Late Preclassic period, but was not a highly valued object until the Classic period (Moholy-Nagy 1994). It is believed that slate artifacts were imported from the Maya Mountains in

Belize in finished form (Buttles 2004; Moholy-Nagy 1994). At Tikal slate was mostly used for backing pyrite mirrors and for stone and shell ear ornaments (lapidaries). Slate was also used for carved and plain monuments. Buttles (2004) after (Graham 1994:12) notes that slate was also used prehistorically as building material.

Figure 6.47. Slate fragment.

Fish Remains

A small fragment of an unidentified material is believed to be a barb from the snout of a sawfish (*Pristis* sp.). It was recovered from the northeast corner of Str. 15 above the plaster floor (Figure 6.48). At Tikal this artifact type occurs in ritual settings, particularly structure cache offerings and burials, and has only been identified within a votive context (Moholy-Nagy with Coe 2008). This artifact class appears at Tikal during the Late Classic period (A.D. 700 to 870) and is categorized as “ritual/unidentified.”

Figure 6.48. Possible fish bone fragments.

Modeled Stucco

Modeled stucco was recovered from all four buildings. A number of the fragments were painted with red pigment (Figures 6.49 and 6.50). Suboperation AE located on the southwest corner of Str. 15 contained the most and largest stucco fragments. Some pieces appear to be part of monumental art (Figures 6.51-6.55). The presence of modeled stucco in all building excavations indicates that all the Late/Terminal Classic buildings were painted and decorated.

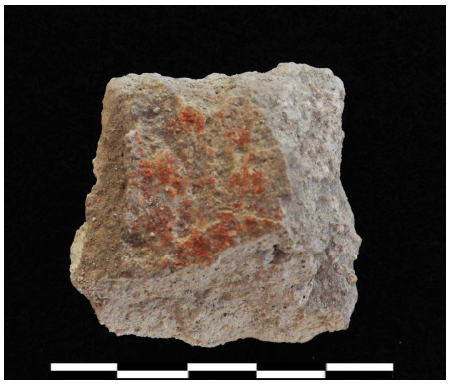

Figure 6.49. Painted stucco.

Figure 6.50. Painted stucco.

Figure 6.51. Modeled stucco fragment.

Figure 6.52. Modeled stucco fragment.

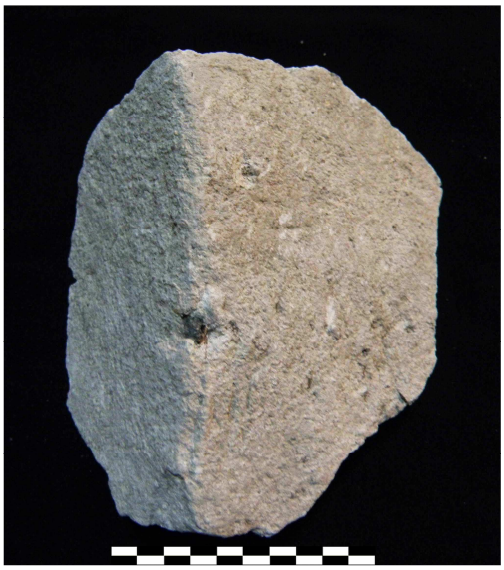

Figure 6.53. Modeled stucco fragment.

Figure 6.54. Modeled stucco fragment.

Figure 6.55. Modeled stucco fragment.

Non-Artifactual Data

Plaster Floor and Soil Chemical Analysis

A chemical analysis is a secondary line of evidence used to determine possible activities conducted in the Los Pisos Courtyard. The highly calcareous nature of plaster floors and soils in the region keeps phosphate, iron and other metallic ions, stable and insoluble for centuries (Terry *et al.* 2000; Wells *et al.* 2000). Therefore, chemical analysis was used to test the concentrations of phosphorus, trace elements, and organic compounds that are produced through various activities. The chemical composition of plaster and soil from interior and exterior spaces will supplement interpretations based on artifact assemblages and architecture form. In the last two decades chemical analyses of the residues in anthrosols and plaster floors has revolutionized ancient space use patterns

in major Maya centers and in structureless sites (Dahlin *et al.* 2007; Fernández *et al.* 2002; Hutson and Terry 2006; Parnell 2001; Parnell *et al.* 2002; Parnell *et al.* 2002; Terry *et al.* 2000; Terry *et al.* 2004; Wells *et al.* 2000).

Traditionally, artifacts and their distribution throughout the landscape are used to interpret ancient behavior. However scholars have noted the problems, which arise when artifact distribution inaccurately characterizes activity areas (Cameron and Tomka 1993; Manzanilla and Barba 1990; Schiffer, 1987). The processes that artifactual and architectonic data undergo during abandonment and post-abandonment can compromise the integrity of the data (see Schiffer 1987). For example, during slow abandonment processes many material belongings are often removed. Additionally, Post-abandonment processes, both cultural and natural, affect the location and distribution of artifacts. Preservation is another delimiting factor that many archaeologists grapple with. Therefore, chemical analysis has become an attractive and productive endeavor used to predict archaeologically significant activities and features based on chemical signatures.

Chemical analysis investigates phosphate and heavy metal signatures to correlate and understand past human activities within the landscape. Phosphorous analysis has a long history of successfully identifying ancient settlements and activity areas (Barba and Ortiz 1992; Parnell et al. 2001; Dauncey 1952; Houston *et al.* 2000). Soils and stucco floors typically have higher phosphate concentrations within food preparation and refuse disposal areas (Fernández *et al*. 2002). More recently, researchers have been able to identify phosphate chemical signatures for market places within Maya centers. Dahlin *et*

al. (2007) and Dahlin *et al.* (2010) argue for market exchange as part of Classic Maya economies.

Activities of the ancient Maya involved the use of a variety of metallic substances increasing the importance of trace metal analysis. Therefore, studies also focus on copper (Cu), iron (Fe), mercury (Hg), manganese (Mn), lead (Pb) and zinc (Zn). Iron (Fe) concentrations have been located in areas associated with agave processing or animal butchering (Manzanilla 1996; Parnell *et al.* 2002). Iron ochre ($Fe_2O_3.H_2O$) and hematite (Fe_2O_3) were used as pigments at the sites of Aguateca and Cerén (Parnell *et al.* 2002; Terry *et al.* 2004). Cinnabar (mercuric sulfide, HgS), a decorative pigment was used by the Maya for ceremonial purposes, e.g., burials and caches (Parnell et al. 2002). Trace metal analysis within and around residential and ceremonial architecture provides a robust tool for identifying pigment processing and other activities (see Goffer, 1980: 167-173).

Methods

Five different materials were analyzed for this study. Plaster floor samples (N=27), earthen floor (N=1), soil (N=20) and molded stucco (N=2), ash (N=1) were collected as part of a pilot study. The extent of the plaster floor space was limited because of partial excavation of the buildings, and the preservation of the floors. This made it difficult to collect samples on an established grid (see Table 6.12). At least 40 grams, of plaster and soil, were collected from the first 4 cm of the surface. Ten plaster floor samples were collected from the three paving episodes within the room located in

Str. 13. Three additional samples were collected from the terrace located on the northern façade of Str. 13. Samples of the last paving episode were collected from the bases and corners of several buildings. Additional samples were collected from the Late Preclassic Structure 1-1 located in the southern end of the plaza. Control for plaster floor samples is problematic; one would have to attain an actual sample of the original plaster that was not used as a floor (Richard Terry, personal communication 2010). Therefore, Professor Terry suggested that we use samples with very low values as comparative background levels.

Soil samples (N=30), between 40 to 100 g, were collected from the midden. Soil samples were also collected from the Burial 1 and Burial 3. One ash sample was collected from the ritual hearth. One molded stucco sample was taken from the terrace area of Str. 13, while a second sample was part of the Burial 3's internment feature. All plaster, soil, and ash samples were sent to the Plant and Wildlife Sciences Department at Brigham Young University where they were air-dried and sieved with a 2 mm sieve. Phosphate levels were analyzed using the Mehlich II extraction procedure; concentrations were determined with a colorimeter (Terry *et al.* 2000). The heavy metals (Cu, Fe, Mn, Hg, Pb, and Zn) were analyzed using diethylenetriaminepentaacetic acid (DTPA); concentrations were determined by inductively coupled plasma-atomic emission spectrometry (ICP-AES) (Parnell 2001; Terry *et al.* 2004).

Results and Discussion

Primary deposits were lacking at the Los Pisos Courtyard, thus possible activities are corroborated through plaster soil chemical analysis in conjunction with architectural layout. The majority of the sampled areas, especially material from or associated with architecture, produced very low phosphate levels. For example, the highest and lowest phosphate concentration, 8.92 mg/kg and 4.40 mg/kg, came from the earliest and oldest plaster floor located within the western section of the room in Structure 13. The terrace also had very low phosphorus concentrations (see Table 6.12). Low phosphate levels may indicate that Structure's 13 room and terrace were not used for food preparation activities. Terry (*et al.* 2004) argue that buildings and/or rooms with low phosphate concentrations were used for storage, for example "the House of the Axes" at Aguateca, Guatemala. Hendon (1987) proposed that benchless rooms often served as large-scale storage bodegas. Harrison (1970) also suggested that simple one or two room structures served as storage rooms for ritual paraphernalia. Perhaps Str. 13 served as a storehouse for ritual paraphernalia.

It is possible that food was prepared and brought in from elsewhere by servants; this service also included the removal of food and other waste (see Tourtellot *et al.* 2002). Kitchens or food preparation structures are often located on the peripheries and spatially dislocated from the centrally located complexes. For example, at Tikal the kitchen facility, Structure 5D-131, was located on the periphery of the Central Acropolis (Harrison 1970; Webster 2001:150). Food preparation areas are outside core

architectural complexes at the sites of Piedras Negras, Aguateca and Caracol (Houston *et al.* 2001: 11; Inomata 2001; Chase and Chase 2001: 131-132).

Low phosphorus, between 4.4 and 7.7 mg/kg, concentrations for the Los Pisos Courtyard midden indicate that this midden was not a food/organic material midden or perhaps it was once an organically rich midden depleted of P through erosional processes. For example, Parnell *et al*. (2002) found the highest concentrations of P in middens (>50 mg/kg) at the site of Cerén. It is therefore proposed that the low P concentrations, in the courtyard and midden, support the idea that food preparation did not occur within the Los Pisos Courtyard. This interpretation is also further supported by the lack of food preparation utensils and features.

It is also common knowledge that the ancient Maya swept up phosphorus-rich organic wastes and trace elements, thus eliminating the possibility of creating chemical signatures of ancient activities. Perhaps activities, such as food preparation and consumption within the courtyard were reserved for special occasions (e.g., high ritual) and the low phosphates and heavy metals levels are a reflection of sporadic use, rather than that lack of certain activities. Cross-comparison for concentrations of phosphates or trace elements between sites provides at best insubstantial evidence; however, the concentrations from the Los Pisos Courtyard were significantly low, even when compared to the lowest values found at sites throughout the Lowlands.

The highest phosphorus concentrations, 462.7 and 235.3 mg/kg, came from the organic soil like matrix found in the chultun burial (Burial 1). It has been proposed that the dark, organic material found over and surrounding the burial was decomposed

perishable funerary offerings such as carved wooden objects, quetzal feathers, floral material, and food offerings. The individual may also have been placed on a wooden litter that had decomposed. There was evidence of ritual burning (carbonized wood) within this soil matrix as well. Copal incense was often burned as part of the ritual practice. Burned pine, a favored ceremonial wood, may have created P concentrations too. Conversely, the soil from Burial 3 produced very low phosphorus levels (8.9 mg/kg).

The earthen floor sample from the first occupation surface (Table 6.13: calibrated radiocarbon date of 2σ B.C. 378-176) also exhibits comparatively high concentrations of P, 19.4 mg/kg (Table 6.12). The presence of Zn in combination with high P has also been interpreted as evidence for food preparation (Dahlin *et al.* 2007). The Zn reading for this sample, 2.63 mg/kg is comparatively higher than other locales within the courtyard. This ashy soil was collected from the most eastern part of Suboperation B, not far from the chultun chamber opening, (Burial 1). The excavations in this region did not reveal the exact nature of this activity. However, when coupled with other data from this time period it appears to be associated with ritual activity (burning). The levels are so low; that I would hesitate to state that food perpetration was taking place. It is mostly likely associated with the wood ash from burning activity. In general, the P amounts are significantly low when compared to sites with designated food preparation areas and middens.

The readings for heavy metals were also relatively low and clear differences in the levels of iron, lead and other elements were not detected. Again negative evidence

suggests that activities associated with these trace metals may not have been conducted within the tested area. Typically Fe is associated with pigments for painting floors and walls. Iron (Fe), can also be associated with craft production of iron pyrite. High concentrations of Fe were present in Str. M8-4 in Aguateca (House of Mirrors) (Terry *et al.* 2004). There are also high levels of Mn, Cu, and Pb in Str. M8-3. It is proposed that these trace elements are associated with craft production involving pigments (Terry *et al.* 2004). A midden associated with Str. M8-10 (the "House of the Scribe") at Aguateca had high levels of Fe. This structure also contained a number of mortars and pestles used in mineral pigment preparation in one of the rooms (Terry *et al.* 2004).

Within Los Pisos Courtyard the highest concentrations of Fe, 11.73 and 7.00 mg/kg, and Mn, 9.39 and 5.97 mg/kg, were found in the first and second levels of the midden (Table 6.12). These metals are traditionally found in pigments for red (hematite and iron ochre) and black paints (Parnell *et al*. 2002). As noted above, Fe is also found in association with agave and animal processing. It is not known if these results are due to paint eroding from the surrounding buildings onto the terrace surface or if these concentrations are from the fragments of molded painted stucco encountered within the midden. One of the first archaeologically identified occupation surfaces, A2-B-14, also had higher Fe levels (6.82 mg/kg). The remaining heavy metal counts are negligible in terms of demonstrating possible activities within the courtyard area.

Soil chemical analysis indicates a higher value of Zn, 1.48 mg/kg, within this 3 cm matrix from the looter's trench burial pit (Burial 3) compared to other samples from the Los Pisos Courtyard (Table 6.12). Zn has been associated with workshop activities

and ceremonial use of mineral pigments (Fernández *et al.* 2002). The Zn concentrations associated with Burial 1 were also substantially higher, 2.61 and 3.20 mg/kg, when compared to other readings from the area under investigation. As mentioned above, Zn is typically associated with workshop areas and ceremonial activity, but has also been documented in areas of food preparation (Dahlin *et al*. 2007). Cu, 1.93 and 2.39 mg/kg, was also found in higher concentrations in Burial 1, when compared to other samples from the study area. Cu is typically associated with green and blue pigments. Higher concentrations of various metals used in pigment manufacturing may suggest that something placed within the chamber may have been painted blue and green.

Most heavy metal and P concentrations were negligible when compared to readings from other study areas. Therefore, most of the samples did not help establish clear-cut interpretations regarding the type of activities that were taking place at the Los Pisos Courtyard. However, when negative information is taken into account, one can say that the activities associated with P and heavy metals were not taking place within the Los Pisos Courtyard. Statistical and spatial analysis (P isopleths) for the P and heavy metal concentrations need to be conducted in order to produce more refined and robust interpretations. Additional samples have been tested, but will be interpreted at a later date along with statistical and spatial data. See Table 6.12 for raw P and heavy metal concentrations.

No.	Lot	Material/Location	Mehlich P	Cu	Fe	Mn	Pb	Zn
1	A2-A-12	Plaster Floor-Interior of Late Preclassic structure	5.22	0.175	1.383	2.550	0.386	0.343
2	A2-A-15	Plaster Floor-Bordering Late Preclassic structure	4.50	0.112	1.511	0.886	0.354	0.174
3	A2-AB-2	Plaster Floor-Interior room of Str. 13	4.40	0.096	2.288	0.901	0.651	0.093
4	A2-AB-3	Plaster Floor-Center room of Str. 13	8.92	0.109	1.578	1.167	0.607	0.112
5	A2-AB-4	Plaster Floor-Southeast corner of room Str. 13	5.25	0.143	1.628	1.167	0.355	0.335
6	A2-AB-4	Plaster Floor-Center of room Str. 13	6.18	0.118	1.455	0.750	0.678	0.173
7	A2-AB-4	Plaster Floor-Northeast corner of room Str. 13	5.06	0.139	0.708	0.609	0.321	0.183
8	A2-AB-4	Plaster Floor-Northwest corner of room Str. 13	5.82	0.128	1.592	0.550	0.636	0.413
9	A2-AB-4	Plaster Floor-Southwest corner of room Str. 13	5.18	0.144	1.234	0.737	0.630	0.178
10	A2-AB-5	Plaster Floor-Northwest corner of room Str. 13	4.36	0.154	1.540	1.742	0.455	0.163
11	A2-AB-5	Plaster Floor-Southwest corner of room Str. 13	4.44	0.146	0.983	0.858	0.431	0.218
12	A2-AB-5	Plaster Floor-Northeast corner of room Str. 13	4.50	0.120	1.506	0.696	0.419	0.438
13	A2-F-3	Plaster Floor-Terrace Str. 13	5.26	0.074	1.059	1.440	0.636	0.138
14	A2-F-8	Plaster Floor Original F unit at summit of Str. 13 Terrace Eastern 2x2 unit	5.15	0.089	0.978	0.822	0.652	0.102
15	A2-F-8	Plaster Floor-Terrace west corner Str. 13	4.36	0.106	1.662	0.906	0.652	0.140
16	A2-W-1	Midden soil	5.4	0.40	11.73	9.39	0.47	0.54
17	A2-W-2	Midden soil	5.3	0.34	7.00	5.97	0.38	0.29
18	A2-W-3	Midden soil	4.8	0.22	4.66	3.63	0.33	0.15
19	A2-W-4	Midden soil	5.1	0.21	4.04	2.97	0.30	0.12
20	A2-W-5	Midden soil	5.9	0.25	3.60	2.98	0.31	0.11
21	A2-W-6	Midden soil	5.8	0.26	4.19	3.48	0.50	0.12
22	A2-W-7	Midden soil	7.0	0.26	3.62	2.77	0.31	0.12
23	A2-W-8	Midden soil	5.8	0.22	3.94	3.16	0.31	0.12
24	A2-W-9	Midden soil	4.4	0.20	3.56	2.16	0.31	0.10
25	A2-W-10	Midden soil	5.8	0.23	3.68	2.25	0.31	0.10

Table 6.12. Concentrations of Extractable Elements from the Soil and Plaster Floor Samples for the Los Pisos Courtyard (in mg/).

No.	Lot	Material/Location	Mehlich P	Cu	Fe	Mn	Pb	Zn
26	A2-W-11	Midden soil	4.7	0.20	4.21	2.45	0.42	0.09
27	A2-W-12	Midden soil	7.0	0.27	4.08	2.39	0.34	0.16
28	A2-W-13	Midden soil	5.5	0.23	3.68	2.23	0.34	0.16
29	A2-W-14	Midden soil	7.5	0.26	4.13	2.60	0.36	0.12
30	A2-W-15	Midden soil	6.9	0.34	4.02	3.13	0.38	0.18
31	A2-W-16	Midden soil	7.9	0.34	4.38	3.64	0.38	0.18
32	**A2-S-2**	**Burial 1 soil (22cm)**	**462.7**	**1.93**	**3.05**	**2.57**	**1.25**	**2.61**
33	**A2-S-2b**	**Burial 1 soil (7cm)**	**235.3**	**2.39**	**4.54**	**3.51**	**1.04**	**3.20**
34	A2-Str. 14A	Burial 3 soil	8.9	0.22	1.10	1.54	0.64	1.48
35	A2-AF	Plaster floor	5.8	0.24	1.78	2.51	0.38	0.13
36	A2-A-15	Plaster floor	5.9	0.22	1.69	1.77	0.32	0.14
37	A2-F-8	Plaster floor	4.6	0.11	0.88	2.64	0.35	0.14
38	A2-V	Plaster floor	3.9	0.24	1.12	1.15	0.32	0.09
39	A2-Y-5	Plaster floor	5.1	0.10	1.92	1.30	0.30	0.07
40	A2-STR 14B	Plaster floor	6.0	0.12	0.69	2.14	0.36	0.20
41	A2-STR 14C	Plaster floor	5.0	0.11	0.68	2.27	0.30	0.19
42	A2-STR 14D	Stucco lining from burial pit (Burial 3)	5.9	0.14	0.62	2.33	0.34	0.32
43	A2-STR 14E	Plaster floor	5.3	0.12	0.64	2.27	0.32	0.26
44	A2-STR 14F	Plaster floor	5.5	0.12	0.63	1.72	0.32	0.07
45	A2-STR 14G	Plaster floor	4.7	0.10	0.77	1.57	0.32	0.15
46	A2-X-2	Plaster floor	5.8	0.08	0.97	0.94	0.33	0.10
47	A2-X-3	Plaster floor	4.8	0.11	1.31	1.30	0.32	0.11
48	A2-B-14	Earthen floor	19.4	1.52	6.81	3.69	0.99	2.63
49	A2-M3	Ash/Ritual pit	6.6	0.16	1.83	3.30	0.43	0.30
50	A2-F-6	Molded stucco	5.7	0.13	2.86	0.72	0.37	0.11

Table 6.12. Cont.

Absolute Dates

Carbonized wood samples and a human bone sample collected from various loci were processed by the author in December of 2008, at the Arizona Accelerator Mass Spectrometry (AMS) Laboratory, Tucson, under the direction of Staff Scientist Alexander Leonard (Table 6.13). Four samples, three pieces of carbonized wood collected in 2009 and human bone collected in 2008, were processed by Beta Analytic Inc (Table 6.14).

Material and Context	Sample Number	Lot	Radiocarbon Age	13C/12C Ratio	2 Sigma Calibration OXcal program
Carbonized wood: Earthen Living surface (Anthrosol), 1st occupation	AA83643	A2-B-15	2160±37 BP	-27	Cal 362 to 100 BC
Carbonized wood: Earthen Living Surface (Anthrosol), earliest occupation	AA83644	A2-B-14	2200±37 BP	-25.4	Cal 378 to 176 BC
Carbonized wood: Earthen Living Surface (Anthrosol), earliest occupation	AA83645	A2-B-14	2070±37 BP	-27.1	Cal 192 BC to AD 5
Carbonized wood: Earthen Living Surface (Anthrosol), earliest occupation	AA83646	A2-B-14	2130±37 BP	-27.5	Cal 352 to 47 BC
Carbonized wood: Burial 1	AA83647	A2-S-2	2150±43 BP	-26	Cal 360 to 56 BC
Carbonized wood: Burial 1	AA83648	A2-S-3	2100±37 BP	-25.1	Cal 204 to 37 BC
Carbonized wood: Burial 1	AA83649	A2-S-2	2120±37 BP	-25.5	Cal 210 to 44 BC
Carbonized wood: Burial 1	AA83650	A2-S-3	2140±60 BP	-25.8	Cal 372 to 42 BC
Carbonized wood: midden or earthen Living Surface (Anthrosol), earliest occupation	AA83651	A2-A-17	2145±37 BP	-25.5	Cal 356 to 53 BC
Carbonized wood: Ritual Burning Pit, plaster floor #2	AA83652	A2-M-3	1890±38 BP	-26.8	Cal AD 51 to 230
Carbonized wood: Ritual Burning Pit, plaster floor #2	AA83653	A2-M-3	1850±37 BP	-27.2	Cal AD 74 to 244
Carbonized wood: Ritual Burning Pit, plaster floor #2	AA83654	A2-M-3	1850±37 BP	-27.1	Cal AD 75 to 240
Human Bone: Burial 3, looter's trench Structure 14	AA94021	A2-Str. 14	1300±43 BP	-10.1	Cal AD 647 to 856

Table 6.13. Results of Radiocarbon Sample Analysis from the 2008 Season.

Material and Context	Beta	Lot	Radiocarbon Age	13C/12C Ratio	2 Sigma Calibration
Carbonized wood: Structure 13 Terrace	262880	A2-F-8-1	440±40 BP	-21.9	Cal AD 1400 to 1450
Human Bone: Burial 1	262881	A2-S-3-1	1780±40 BP	-10.8	Cal 100 BC to AD 70
Carbonized wood: Midden	262882	A2-W-20-1	2000±40 BP	-23.3	Cal 160 BC to AD 60
Carbonized wood: associated with Burial 2	262883	A2-X-6	1890±40 BP	-24.6	Cal AD 20 to 220

Table 6.14. Results of Radiocarbon Sample Analysis from the 2008 and 2009 Season.

The corpus of radiocarbon dates (N=17) was extremely helpful for determining the chronology of occupation at Los Pisos Courtyard. Nevertheless, material (carbonized wood and bone) used for radiocarbon dating was not evenly distributed throughout the excavations. Eleven of the samples were confined to the Late Preclassic period. The remaining six samples yielded four Protoclassic dates, one Late Classic date, and one Postclassic period date. This data does not represent of the complete occupation sequence of the courtyard (Late Preclassic to Late/Terminal Classic periods). However, when coupled with the ceramic data and stratigraphic sequences a more symmetrical and systematic occupation chronology for the Los Pisos Courtyard was established. All samples fall within archaeologically acceptable dates and within the conventionally accepted ranges for the Late Preclassic, Protoclassic, Late/Terminal Classic, and Postclassic phases in the Maya region.

The material analyzed consisted mostly of carbonized wood, and two human bone samples. All samples, with the exception of three were produced through specific cultural activity, e.g., ritual burning, and burial practices, and come from either sealed

context and or a designated activity area. Primary context and/or activities that produced Samples AA83651 and 262883 could not be ascertained, and it was unclear what sort of activity produced Sample 262880. The first sample from this category was collected from the main midden north of Str. 14 (Suboperation W, Sample No. 262883), a second sample (Suboperation F, Sample No. 262880) was found on the western end of the terrace surface, perhaps intermixed with collapse debris. It is unclear if the third sample (Suboperation A, Sample No. AA83651) came from the possible midden located beneath the Late Preclassic Str. 1-1, or if it can be associated with the burning activity area documented in Suboperation B, Lots 14 and 15.

Carbonized wood and bone can yield radiocarbon age ranges that do not correspond with already established chronologies, and in some cases can be all together invalid. In some regions, e.g., the American Southwest, archaeologists have to contend with the "old wood" problem. This is due to the high preservation rate of wood, which often "leads to vast accumulations of old wood in the environment and in systemic context" (Schiffer 1986: 26). The humid and wet environment of the Maya lowlands does not afford the preservation present in the American Southwest. However, woodcarvings, lintels, and other wood implements have been documented in small quantities from various sites. Therefore the "old wood" should also be considered during the assessment and interpretation of radiocarbon data if the charcoal derives from long-lived species (Schiffer 1986:27).

It is the lack of preservation that most likely affects material such as carbonized wood and bone. Oftentimes it is nearly impossible to collect large enough samples of

carbonized wood from many contexts in the Maya lowlands. Even with AMS methods they can be too small. When large enough samples are present they may be too decayed and produce erroneous dates. The difficulty with bone is due to the poor preservation rate of bone collagen in humid tropical environments. For example, Higham *et al*. (2006) notes that low collagen content in bone can increase environmental contamination, unless proper pretreatment decontamination methods (e.g., ultrafiltration) are applied. Fortunately, the samples from the Los Pisos Courtyard were mainly collected from sealed deposits, where preservation conditions were quite good.

Late Preclassic carbonized wood samples from Suboperations B and S (400 B.C. to A.D. 250), AA83643, AA83644, AA83645, AA83646, AA83647, AA83648, AA83649, AA83650 are considered to be contemporaneous and related to the first Late Preclassic activity in the courtyard. Although, Samples AA83647, AA83648, AA83649, AA83650, was collected from the chultun burial chamber (Suboperation S: Burial 1), and Samples AA83643, AA83644, AA83645, AA83646 (Suboperation B) were recovered the bedrock surface, they are in close association. It appears that two forms of ritual burning took place, one inside the chultun chamber and the other on the surface near the chultun entrance.

Human bone from Suboperation S, Sample No. 262881, yielded a Late Preclassic date. Although it falls within the 2σ calibrated age ranges produced by the wood samples from Suboperations B and S (Burial 1), the bone sample yielded a later age range, B.C. 100 to A.D. 70. The latest age range from the carbonized wood is 192 B.C.- A.D. 5, while the earliest is 378-176 B.C. (see Tables 6.13 and 6.14). One could attribute such a

disparity to the two different material classes analyzed and/or depositional context. Perhaps, the bone was better preserved in the chultun chamber, thus provides a more accurate date. One can also argue that the bone yielded an age range that is anomalous. However, Schiffer (1986:23) makes an important point when it comes to anomalies in radiocarbon dating, "it is inevitable that one person's anomalies will be another's critical dates." Moreover, while the age ranges from Suboperations B and S (Burial 1) fall within the prescribed Late Preclassic period (400 B.C. to A.D. 250) one can see anomalies within these age ranges too.

Therefore, the radiocarbon data from the Los Pisos Courtyard pose two different age ranges for the Late Preclassic period. Initially it was believed that the courtyard was occupied during the early part of the Late Preclassic, between 400-100 B.C. Conversely, the human bone from Burial 1 indicates that the courtyard was first occupied during the middle Late Preclassic, between B.C. 100 and A.D. 100. Although neither of these possibilities can be ruled out, the ceramic analysis conducted by Sagebiel (2005) points in the direction of middle Late Preclassic 1 A.D. occupation at La Milpa. Therefore, it appears that the bone provided more accurate age range.

Four carbonized wood samples from Suboperations M and X fall with fall within the Late Preclassic period, but are regarded as Protoclassic (A.D. 150-250). This is due to the occurrence of mammiform tetrapod vessel fragments, Floral Park complex, in Suboperation M (Figures 5.14 and 5.15). Three of the samples, AA83652, AA83653, and AA83654, were recovered from a sealed deposit, a permanent hearth (ritual burning pit) that was built into the second plaster floor. The fourth Protoclassic sample, 262883,

was recovered in construction fill in association with Burial 2. Although such a context is often considered to be problematic, there was evidence of burning activity in the form of ash in a small concentrated area with carbonized wood remains, indicating that the burning activity occurred *in situ* and is related to the burial.

Human bone (collagen) Sample No. AA94021, yielded at Late and Late/Terminal Classic period (A.D. 600-900) age range. This sample was at one point a sealed deposit, a small stucco-lined burial pit. However, it was exposed during looting activity at the site. Nevertheless, the bone sample came from a section of the pit that had been left undisturbed. This burial was located on the axial staircase of Structures 14, and appears to have been placed just outside the two-room structure. The pit was constructed through the platform floors of Str. 14 Sub-1 (Figure 5.74). Although the 2σ calibrated age range lies between A.D. 647-856, the location of this burial feature indicates that the burial took place during the later peak of this age range (Late/Terminal Classic period A.D. 750-900).

A total of three samples, Nos. 262880, 262882, and AA83651, was recovered from unsealed deposits. However, the dates were used as chronological markers and for determining areas of activity for the Los Pisos Courtyard. Sample AA83651 produced a 2σ calibrated date of 356-53 B.C. and was recovered from a possible midden or midden construction fill beneath Late Preclassic Structure 1-1. The presence of this date indicates the initial Late Preclassic occupation took place within at least a 20^2 m area. However, is not known if the sample was associated with the burning around the chultun burial or part of a midden. Sample 262882 was collected from the deepest lot in the main

midden (Suboperation W), and yielded a 2σ calibrated date of 160 B.C. – A.D. 60. Such a date suggests that the terrace area, north of Str. 14, was used as a midden during the Late Preclassic period. Finally, Sample 262880 was recovered from the terrace on Structure 13. This sample yielded a 2σ calibrated date, A.D. 1400-1450, the latest date at Los Pisos Courtyard. Although it is not clear if this was on the terrace surface or intermixed with collapse debris, it appeared to be an isolated find. This age range does indicate, however, that some sort of activity was taking place within the Los Pisos Courtyard during Postclassic times.

Mortuary Analysis

The analysis of stature, paleopathology, and diet of prehistoric individuals can reflect the status (social level) of individuals and/or groups, demography, and sociopolitical organization of a particular region and/or site. Other data sets, burial context and location as well as artifactual data, e.g., luxury funerary furnishings, can also provide valuable information. At the Los Pisos Courtyard three interments were documented. The first was discovered during the 2008 field season in a chultun chamber (Burial 1), while the Burial 2 was associated with the large construction effort that took place during the Early Classic period. Burial 3 was located on the axial staircase of Str. 14, the group shrine. Only Burial 1 was fully excavated and recovered. Although the sample is quite small and not representative of La Milpa, this research supports some of the fundamental assertions of this dissertation.

Burial 1

The burial consisted of one male. Sex was determined by the narrow greater sciatic notch and narrow sub pubic angle of the pelvis (Julie Saul, personal communication 2008). The individual was quite young at the time of death, 18-25 years old. The age range is based on the morphology of the pubic symphysis (Figures 6.56), the auricular surface on pelvis, and a sternal end present on a rib (Phase 3 for males) (Andrea Nardin, personal communication 2009; Buikstra and Ubelaker 1994; Lovejoy *et al.* 1985). Evidence of an unfused clavicle and the line of fusion present on the radius and ulna also suggest a young age (Drake 2012; Bass 1995:135). The individual placed in a sitting position, facing east, and was possibly bundled. The sitting position is the predominant position at the site of Cuello during the Late Preclassic period within all age and sex groups and in both public and domestic contexts (Robin 1989).

Figure 6.56. Pubic symphysis from Burial 1 individual.

The analysis of stature, a cumulative indicator of childhood growth disruptions (Falkner and Tanner 1986) in living and prehistoric populations, is used to explore the factors contributing to changing health conditions. In ancient Maya society stature is most often used to explore differences in physical health during transitions between the major time periods (of particular interest is the Terminal Classic period), and to track changes in demography and sociopolitical organization. During the Late Preclassic at Tikal, the difference in stature between tomb (Burial 185:169 cm) and non-tomb individuals is approximately 7 cm. Such a disparity signals the formation of a distinct ruling class, which exercised political control of some sort by A.D. 1 (Haviland 1967: 321). Greater stature during Early Classic times indicates that rulership was restricted to

certain families which subsequently transformed into a hereditary ruling class with access to certain luxuries, which include a better diet compared to those of a lower social status (Haviland 1967).

Stacy Drake, a doctoral student from the University of Texas at Austin, calculated a stature of 164.752 cm (formula used: Bass 1995:29) for the individual in Burial 1 based on tibia length. His stature is distinct from the stature of the tomb individuals from Tikal from the Late Preclassic and Early Classic period (Burial 85:169 cm and Burial 125: 171 cm). However, the individual from Burial 1 had a much greater stature than the mean stature of males from lowland Maya sites during Late Preclassic times, e.g., Tikal: 164.5, Seibal: 153.1, Barton Ramie 154.3 cm, Cuello: 162.6 and 158.5 (Danforth 1994; Haviland 1967; Saul and Saul 2006). According to previous studies, the calculated stature of the individual from Burial 1 is comparable to the uppermost statures recorded from other sites (see Danforth 1994, Table 1). Stature is affected by genetics to an unknown degree; however, environmental factors (e.g., nutrition) are also believed to influence variation in growth patterns in genetically continuous populations (Danforth 1999: 104).

Taking into account that the diet of elite groups was richer and consisted of more nutritious elements, the individual from the chultun burial can be assigned to such a social context. Therefore, the individual from Burial 1 may have had access to a diet, which resulted in a greater stature than recorded statures from other sites. The location and burial treatment of the individual coupled with his stature indicate that he was someone of higher status. However, all comparative data needs to be approached with

caution, particularly small data sets across time and space, differences in methodological approaches (e.g., upper compared to lower limb measurements), different formulae, preservation conditions that only permitted *in situ* measurements, and regional variability (Danforth 1994, 1999; Masur 2009; Saul and Saul 2006).

This individual (Burial 1) was interred in a *chultun(* off-axis *chultun* tomb). First reported at the site of Uaxactun as a "chamber" type of grave: a "large, specially constructed mortuary chamber" (Figures 5.24 and 5.25) (Coe 1959:120). Although chultun interments are present throughout the lowlands, they are not as common as other grave types, e.g., simple, cist, crypt, tomb etc. (Welsh 1988:95-101). Mountain Cow (4), Uaxactun (3), and Tikal (4) are sites with the most documented occurrences of Chultun burials (Ricketson and Ricketson 1937:139-149; Smith 1937:17-18; Wauchope 1934:141-142; Welsh 1988:95-101). More recently, a Late Preclassic chultun tomb with an extraordinary amount of sumptuous funerary furniture was reported by Tomasic and Bozarth (2011) at the site of K'o, Guatemala. Ruz (1968) refers to A.D. Smith's chamber classification as a chultun or cave; this is interesting given the metaphorical symbolism associated with caves and the underworld. Welsh (1988:91) considers chultun burials to be simple in construction efforts, however he believes certain grave locations are an important element that was preferred for important members of the community, e.g., Burial 1. In general *chultunob* appear to be early features and at some sites diminish in construction once building efforts become formalized (see Coe 1990).

The chultun at Los Pisos Courtyard was constructed into the bedrock approximately 2.3 m below the present ground surface (Figure 5.108) and is the first

documented construction on this natural limestone hillock. Carbonized wood samples found in the chultun yielded uncalibrated radiocarbon are ranges of 2150±43 B.P., 2100±37, 2120±37 B.P., and 2140±60 B.P., with 2σ calibrated age ranges of 360-56 B.C., 204-37 B.C., 210-44 B.C., and 372-42 B.C., respectively. Human bone produced an uncalibrated radiocarbon age of 1780±40 B.P., with a 2σ calibrated age range of 100 B.C.-A.D. 70 (see Tables 6.13 and 6.14).

The topography on which the courtyard sites is very undulating, additionally the paving episodes in the southern and northern areas of the courtyard are incongruent during Late Preclassic and Protoclassic times (B.C. 400-A.D. 250) and it is not until the Early Classic period that paving episodes match. This indicates that the plaza was paved from the northern to southern ends and the present platform configuration took hold during the Early Classic period. The chultun was constructed in the southern region, perhaps a designated religious space and may relate to the sanctification of the space similar to what has been interpreted for the North Acropolis at Tikal (Becker 1992; Weiss-Krejci 2011).

During ritual re-entry the long bones (femora) and cranium were removed after the initial burial, perhaps after decomposition had taken place allowing the removal of these skeletal elements without cutting. The epigraphic data chronicles the funerary events that take place at the death and veneration of elites including secondary manipulation of skeletal elements (Eberl 2005). The funeral or *muhk-aj* is the first ritual event and takes place between 100-400 days after death. The smoke ceremonies, or *el naah,* take place years after death and it is during this time that secondary treatments of

the skeletonized body take place, e.g., the re-collection of bones and bundle re-depositions (Tiesler 2007:22). For instance, it is proposed that the Hunal Tomb and Margarita Tomb at Copan were accessible for ritual re-entry after decomposition had taken place (Buikstra and Ubelaker 1994; Sedat and Lopez 2004). Burials 48 and 85 at Tikal show similar treatment of their dead. At Tikal bundle burials were not always complete and it is presumed that some elements may have been removed for ritual purposes (Becker 1992).

A capstone was found within the chamber, and a new capstone (the one which we encountered and removed) resealed the chultun entrance. Perhaps ritual re-entry may have been reserved for certain occasions or for a specific duration after the initial burial, prohibiting the retrieval of the capstone found in the chamber. What is clear is that ritual re-entry occurred prior to the first paving episode. As discussed in Chapter 5, this burial was devoid of funerary accouterments. It has been suggested that a dark organic soil covering the burial (Figure. 5.33) may have been decomposed perishable funerary objects (feathers, wood, textiles, food). Careful screening of the soil produced a small-carved shell fragment and chips of ceramic slip. Perhaps non-perishable funerary objects where present, but removed for curation during ritual re-entry.

Burial 2

Burial 2 was located within the mortar and cobble construction fill, approximately 160 cm below the present ground surface (Figure 5.63). Three human teeth and a long bone fragment were recovered from an ashen soil (including carbonized wood) indicating

that that an interment or re-interment burning ritual took place (Figures 5.63 and 5.64). A piece of carbonized wood associated with the human remains yielded a an uncalibrated radiocarbon age of 1890±40 B.P., with a 2σ calibrated age range of A.D. 20 to 220—the Protoclassic period (see Table 6.14). Although the presence of small bones and/or teeth can point in direction of primary interment, it is not known if the burial was a primary or a secondary interment. Most of the burial is under the southern façade of the structure, beyond the limits of the subop. Time constraints limited excavations of the burial therefore the condition or other osteological data (sex, age, stature, paleopathology, position) relating to the burial is not known.

Burial 2 is considered a simple burial based on a definition provided by Smith (1950:88): "An unlined hole in the ground or inclusion of the body in fill during construction." This type of burial may be classified or considered an "earth offering" (Becker 1992). Becker (1992) differentiates between "burials" (disposal of the dead) and "caches" (making an offering). Human remains in such contexts have also been identified as desecratory termination deposits (see Pagliaro *et al*. 2001:79). A monument fragment, perhaps an altar or stela, was placed in the sascab fill 90 cm above the burial (Figure 5.60)

At the end of the Protoclassic period, the north end of the plaza was built up and the current courtyard configuration began to take form. The individual from Burial 2 was placed within the mass construction fill efforts and a burning ceremony took place. It is possible that this was an important individual with elevated ancestral status that was offered during a re-newel dedicatory ceremony. Mock (1998) notes that dedicatory and

desecratory termination deposits placed at the central axes of buildings and plazas represent liminal interstices and illustrate transitional changes (Harrison-Buck *et al.* 2007). In this case, it is proposed that this was not a violent desecratory termination, but a dedication to celebrate a new architectural program and shifts in sociopolitical organization during the Early Classic period (see Chapter 9).

Burial 3

The interment of this individual was not what one would consider elaborate—a small stucco-lined pit. However, its location within Structure 14 is what is most significant (Figure 5.74). The small stucco-lined pit was placed outside, but adjacent to the two-room structure, and through the two large plasters floors of the platform, Str. 14 Sub-1. Structure 14 in its final form is considered to have served as the group shrine. Therefore, this individual must have been an important family member and/or royal lineage member. Human bone was collected for radiocarbon dating. Although an uncalibrated radiocarbon age of 1300±43 B.P., with a 2σ calibrated age range of A.D. 647-856 (Table 6.13), it location in Str. 14 suggest that the individual was interred sometime after the construction of the two room superstructure during the Late/Terminal Classic period. It was not unusual to see less conspicuous burial types and funerary accouterments during this time period (see Houk 1996; R. Smith 1955). The burial was not excavated, however it was documented and mapped.

The individual appears to be an older adult approximately 40-60 years of age (Lauri Martin, personal communication 2010). It is doubtful that sex can be determined

from the few small bones and fragments that were collected. Stable isotope results suggest a diet typical of males during this time period (see discussion below). The presence of small foot and hand bones suggests that it may have been a primary interment. Doctoral student C.L. Kieffer from the University of New Mexico conducted stable isotope analysis of the bone collagen organic bone phase to determine the diet of this individual.

In the Maya region the reconstruction of diet is used to explore the relationship between diet and social status across time and space, particularly dietary privilege and how this may have changed across the landscape through time. Such information is accessed through stable isotope analysis, an important method that reflects the chemistry of the diet. High status individuals are classified as having a diet rich in protein and maize and a variety of wild foodstuffs, what Chase and Chase (1992) term the "Palace Diet" or what Goody (1982:133) calls "hierarchical cuisine." McAnany (2010:23) elegantly exemplifies how such a diet may have created visual and aromatic essence: "The smell, look and diet of royal bodies – those with jaguar Co-essences – are found to differ significantly from those of commoners and are argued to have supported the notion of 'stranger kings and queens'."

Stable carbon (12C and 13C) and nitrogen (14N and 15N) isotopes, and the ratio of heavy to light isotopes preserved in human bone are used to reconstruct prehistoric diet (Ambrose 1993; Gerry 1997; Metcalfe *et al.* 2009). Carbon isotope ratios (expressed as a delta value in per mil $\delta^{13}C$ and ‰) within terrestrial ecosystems are absorbed in two photosynthetic pathways: Calvin cycle (C3), and Hatch-Slack (C4) (Gerry 1997). Trees,

shrubs and temperate grasses (most food plants) fixate on the C3 pathway, while tropical grasses (maize) fixate on the C4 pathway (Gerry 1997).

In Mesoamerica terrestrial plants fall within the C3 pathway, with the exception of maize which is the only significant C4 cultigen. When such a cultigen is present it is expressed in a positive $\delta^{13}C$ between -12.5 and -10.5 (Gerry 1997; Trimble and Macko 1997). However, Gerry (1997) note that in inland Maya sites isotope data also illustrate the importance of other terrestrial plants like beans and squash.

The $\delta^{13}C$ value of collagen ($\delta^{13}C$ col), the measurement used for this study, is primarily derived from dietary protein. The value of structural carbonate in bioapatite measures the entire diet combined, including proteins, carbohydrates and lipids (Ambrose and Norr 1993). Nitrogen isotope ratios provide a distinction between marine and terrestrial foodstuffs, and between leguminous and non-leguminous resources (Gerry *et al.* 1997). The marine and fresh water food chain (mollusks, fish and marine mammals) produces more positive $\delta^{15}N$ ratios (Gerry 1997). Therefore, $\delta^{15}N$ ratios for meat, seafood, and fresh water fish consumers should be expressed more positively (Gerry 1997).

The stable isotope values for the individual from Burial 3, $\delta^{13}C$ -9.25 and $\delta^{15}N$ 10.60, indicate that this individual had a diet rich in maize and protein also referred to as the "Palace Diet" (Chase and Chase 1992). The C/N ratio of 2.8 indicates that the collagen was not altered through diagenesis (Metcalfe *et al.* 2009). The consumption of C4-enriched animal foods, including maize fed dog and armadillo, is also proposed for enriched carbon isotope rations (Tykot 2002). High $\delta^{15}N$ values indicate the reliance on

protein from higher trophic levels (i.e., terrestrial animals and marine or fresh water aquatic resources). These values may also indicate high consumption of meat protein. For example, at Tikal an increase in the reliance on whitetail deer and larger wild birds as meat sources was observed during the Late Classic (A.D 700 to 780) (Moholy-Nagy with Coe 2008).

At La Milpa intra-site difference in carbon isotope ratios are based on status, which suggests that hierarchies of food consumption existed among individuals of different social status within the site (Tykot 2002). Compared to the mean values of other stable isotope studies conducted across time and space (see Gerry 1997; Metcalfe *et al*. 2009; White *et al.* 2001), $\delta^{13}C$ and $\delta^{15}N$ values from Burial 3 are some of the highest to date when compared to other site means. The $\delta^{13}C$ value (-9.25) is one of the most positive, while the $\delta^{15}N$ value (10.60) falls within the highest mean. The individual from Burial 3 was likely a high-ranking member of the elite. Such a small data set cannot shed light on the diet of the La Milpa community, however it can be assumed that the elite at La Milpa continued to enjoy the dietary privilege afforded to them during the Late Classic and perhaps into the Terminal Classic periods—a time when the activities in civic/ritual precincts began to decline throughout the Maya lowlands.

Although a total of three burials were encountered during excavations, diagenesis appears to have occurred to the collagen sample (C/N ratio of 4.5) from the individual recovered from the chultun burial chamber (Burial 1). The results provided very misleading values, $\delta^{13}C$ -20.25 and $\delta^{15}N$ 5.70. The stable isotope ratios from collagen, -21.5 $\delta^{13}C$, correspond to a diet lacking in maize (Katzenburg *et al.* 1995). Changes in

$\delta^{13}C$ and $\delta^{15}N$ values during the transition from hunting and gathering to the adoption of maize agriculture in southern Ontario showed that the least positive $\delta^{13}C$ value as -20.5. Such a low value is indicative of a diet lacking or very low in C4 plants, however the $\delta^{13}N$ value was quite positive, 11.2‰. The $\delta^{13}N$ value in the Katzenberg (*et al.* 1995) study remained pretty constant even after the adoption of maize horticulture.

The chultun individual shows a very low $\delta^{13}N$ value indicating that was maize lacking as well as protein. Moreover, the $\delta^{13}C$ and $\delta^{13}N$ reading for Burial 1 corresponds more with Maya lowland fauna, particularly the *Tayassu pecari and T. tajacu,* than with human stable isotope readings from other studies (see Gerry 1997). Although consumptions levels of maize changed through time, maize was the staple crop throughout the entire history of the Maya, extending from the Preclassic through the Historic period (White and Schwarcz 1989). Therefore the $\delta^{13}C$ and $\delta^{13}N$ values for Burial 1 are excluded. The remains of the third individual, located at the base of Str. 14, were too calcified to conduct stable isotope analysis.

Chapter 7: Preclassic: Early Formations and Ancestor Veneration

Introduction

It is assumed that during the Late Preclassic period the site of La Milpa was a village site, perhaps comparable in scale and complexity to the nearby sites of Rio Azul, Cuello and Cerros. The Los Pisos Courtyard, in all likelihood was occupied and constructed by a pioneering lineage, as the instrument and facility used in the reproduction and transformation of an enduring religious ideological structure in Maya society. This happened as early as the Late Preclassic period and lasted through the Protoclassic periods (400 B.C. to A.D. 250). The Los Pisos Courtyard, including Plaza A, may have, borrowing the words of (Smith 2003:27) "acted as a nexus for communication and as the repository of shared ethos defined and maintained by its residents." The production and reproduction of the religious ideological structure, possibly in the form of ancestor veneration rituals and other rituals was performed in a visible locale, the Los Pisos Courtyard, to create a collective experience and community identity and a "sense of place" (e.g., Feld and Basso 1996). Such a ritual setting may have been constituted by members of higher status to create arenas of social interaction for all members of society. This concept runs parallel to Hillier and Hanson (1982:2) who emphasize that the organization of space equals the organization of people.

As such, this socially constituted group represents a community that is contingent on the practice of its members for its continuation (Bourdieu 1977, 1990; Giddens 1984). Performing and participatory agents naturalized the religious ideological structure of the

Maya through the continuity of ritual performance, social integration and the creation of place. At the site of Xunantunich Yaeger (2000a, 2000b) observes that activities undertaken by everyone in the social group, which provide a sense of belonging, and connection with the greater polity, create identity. Canuto and Fash (2004:52) argue that such a model falls in line with the *dynamic model* proposed by Marcus (1992) and Demarest's (1992), *galactic polity,* where the community is constituted and consolidated on multiple scales of social and political organization.

The following section discusses the shift from household ritual settings to an increased emphasis on public ritual settings that occurred during the Middle Preclassic period, and perhaps earlier. At La Milpa it appears that this form of ritual public setting and ritual practice may have been constituted during the Late Preclassic period. Therefore, agents (Milperos) were in a sense producing and reproducing religious aspects of Maya society during the Late Preclassic period, which were already entrenched in Maya ideology by the end of the Middle Preclassic.

Middle Preclassic (700 to 400 B.C.) Ritual and Architecture

Ritual practice during the Middle Preclassic in many lowland sites and neighboring regions (Mexico and the Guatemalan Highlands) is believed to have taken place at the household level. Hendon (1999) notes the lack of evidence for more centralized ritual practice beyond the household during the Middle Preclassic period in artifact and architecture forms. Human figurines, both female and male (with female being more prevalent), recovered from household middens are considered the most

common form of ritual paraphernalia used (Drennan 1976:352-353; Hendon 1999; Joyce 1999; Marcus 1993; Moholy-Nagy with Coe 2008).

However, the use of figurines ends during the late Middle Preclassic period (Hendon 1999; Joyce 1999; Love 1999; Julia Guernsey, personal communication 2011; Norman Hammond, personal communication 2011). This decline is typically thought to be correlated to a general decline in household ritual and an increased emphasis on public ceremony in explicitly defined ritual settings. This shift corresponds to a shift in the construction of permanent and formally arranged household architecture to the construction of monumental architecture during the Middle to Late Preclassic transition (Ringle 1999). Hendon (1999) believes that it was domestic architectural elaboration that created and signaled the emergence of more permanent hierarchical differences, which would later translate into the centralized political authority seen in the Late Preclassic (in some sites) and Classic periods throughout the lowlands. These architectural elaborations and ritual expansion readily occurred during the late Middle Preclassic during which elite lineage heads replicated domestic rituals within elite compounds (Hendon 1999; Walker and Lucero 2000). However, it is important to acknowledge that it was not only the appropriation, but also the transformation of ritual ideology that occurred during the Middle Preclassic period. Household level ritual practice was embedded in Maya social structure—thus this form of ritual ideology remained an integral aspect to all segments of society, for both the elites and non-elites (see Stuart 2005).

The introduction of monumentality and public architecture, particularly temple pyramids and large platforms, is noted first at the close of the Middle Preclassic at

Mound B-IV at Altar de Sacrificios by Smith (1972:111), Seibal's Group A (Willey 1990), Rio Azul's G-103 (Valdez 1992), Tikal's North Acropolis (see Coe1990: 195; Loten 2003; Weiss-Krejci 2011), Cuello (Hammond 1991b: 232-233), and of course Tikal's Mundo Perdido Complex (Laporte and Fialko 1990, 1995). However, the occurrence of public plaza ritual space is present at the sites of Ceibal and Cival during Pre-Mamom times (Takeshi Inomata, personal communication 2012). Therefore, it is also possible that public ritual or ritual beyond the household level, was taking place within these sedentary communities prior to the construction of formalized ritual space. As such, it may have been a modification in ritual practice, rather than a shift from domestic to public ritual settings (Takeshi Inomata, personal communication 2013).

Nevertheless, archaeological traces of this religious translocation constitute some of the first features of elite high culture in the form of public architecture. For example, by the Preclassic period E-group assemblages, used for astronomical public rituals, were present at the sites of Uaxactun, Tikal, El Mirador, Nakbe and Wakna (Aimers and Rice 2006; Chase 1983:1245; Chase and Chase 1995:36; Coe 1965b: 23; Hansen 1998). The built environment, forms of public architecture, was where order, legitimacy and wealth intersect and it was during this period that monumental platforms crowned the landscape (Joyce 2000b). Platforms in many Mesoamerican sites during the Formative period became circumscribed settings for privileged burials (e.g., highly ornamented) and divorced from the communal burial settings typically located within the house compound floor. The individuals with such mortuary rites are thought to represent the elite of Formative Mesoamerica (Joyce 2000b: 72, 2004).

By the Preclassic and through the Late/Terminal Classic periods (250 B.C. to A.D. 900) social reproduction in the form of ritual practice took place within public space—e.g., centralized spaces and temple structures (Walker and Lucero 2000). This was an important step by which consequential behaviors such as heavily charged ritual acts became fixed in space and associated with locale. According to Love (1999:143) a similar transition occurred in the Pacific Guatemala Coast during which the first step towards segregation and regularization of activities in space took form.

It is within such time-space continuums that co-presence is achieved—and it is through such ritual congregations that the moral authority of ritual leaders and, later, holy lords was upheld. Ritual then became the ethical arena in which moral authority can act, in this case the ritual leader or holy lord, and the order he/she sustained. The collective values established during co-presence "nurture a moral "economy" of values and reciprocal obligations" (Houston *et al*. 2003: 232). For example, pre-industrial cities according to Houston *et al*. (2003) use collective worship and ritual as a means to actualize moral actors. Therefore, it is within formative village sites that the roots of complexity and the ontology of rulership can be explored, particularly individual status roles (Chang 1983:122). As such, the emerging elites (perhaps ritual leaders) at La Milpa may have used the Los Pisos Courtyard and ritual practice (particularly ancestor veneration) to initiate what McAnany (2001:147) calls the "recombinant process of giving birth to rulership."

Ritual Leaders

> Can we discern a "great simplification" of Maya cosmology attendant on the emergence of kingship? Is "shamanistic politics" in effect a simplification of Formative period cosmology? Based on the foregoing discussion, I think not: rather, the opposite seems to have occurred, with an increasingly complex array of ancestors and supernaturals to be venerated, placated, summoned, and impersonated through increasingly elaborate ritual performance. McAnany (2001:143)

More privileged leadership roles emerged during this new form of ritual practice and there exists a strict connection with the ontogeny of rulership and ritual performance and knowledge of the cosmos (Freidel et al. 1993:58). This transition can be seen as the catalyst that stimulated a system of governance centered on one charismatic ritual leader. Prior to this leadership roles were likely multiple and/or overlapping and individual leadership roles may have been present only during community activities, e.g., rituals (Smith 2003:14). It is when the collective society believes in what in Polynesian societies is called *mana* of a man or woman, that a leadership role is consecrated. McAnany among others believes in the ideational approach to political authority and power—sacred power leading to political power (Durkheim 1965:244; McAnany 2010:152).

McAnany (2001:134) believes that the collection of "a strong tradition of kin hierarchy (particularly kin hierarchy identified with first founders), individual status marking and ancestor veneration" took hold during the Formative period. Such a collection along with the temporal framework of ritual cycles and performative aspects of ritual practice afforded a "very personalized style of rulership that is so characteristic of

the Maya lowland" (McAnany 2001:147). McAnany (2010:151) interprets the stucco facades on Preclassic architecture as the entangled relationship between power and sacrality and the manipulation of the cosmological precepts that led to political power.

In Maya society the importance of shamans and shamanism are considered wholly connected and are key to understanding Classic Maya rulers (Freidel 1992; Freidel et al. 1993). For example, McAnany (2001:126) notes Chang's (1983:112) idea of the consolidation of shamanic power with political authority in China—"shaman politics." The ability of shamans and later shaman kings to mediate between the gods and humans profoundly expanded influence and power but in a more structured and institutionalized context according to Houston and Stuart (1996).

Blanton *et al.* (1996) argue that the development of individualized leadership was preceded by the development of corporate or group level interaction. Smith (2003) also notes that archaeological examples of social complexity (e.g., Renfrew 1974; Trubitt 2000) fall in line with Blanton *et al.* (1996), where group based interaction appears to precede individual leadership roles. However Blanton *et al.* (1996) propose that in Mesoamerica, in particular Teotihuacán, individual and corporate leadership organization oscillate in time and space. Nevertheless, it appears that group level interaction stimulates the development of individual leadership organization that becomes cemented and solidified by Classic times.

Smith (2003:16) proposes that leadership roles emerge in a variety of ways. She notes that at incipient cities, "priests and other ritual specialists may provide a supernatural setting and a sense of purpose to the urban social and physical landscape."

The formation of elite culture is thought to have been associated with certain individuals with access to knowledge of the supernatural and their roles as ritual practitioners (Gillespie 1993). For instance the burials from the site of Tlatilco contained funerary accouterments possibly associated with individuals carrying the status of ritualists (Joyce 1999).

Among the Quiché Maya of Utatlán lineage heads played both priestly and political roles whereby the two reinforced one another, "the sacred power of ritual legitimizing political authority and political conquests adding to the leaders' charisma" (Carmack 1981:63). Such a concept resonates with archaeological correlates, for example Houston argues that rituals of place conducted by nascent religious leaders at Piedras Negras established physical manifestations for the housing and maintenance of tutelary deities as well as a way to organize society around a royal court (Houston *et al.* 2003:215). Headrick (1999) proposes that Teotihuacán's civic ceremonial structures and complexes located on the Avenue of the Dead were used to venerate mortuary bundles, perhaps of leading family members or individual leaders (see Cowgill 2003:43).

These authors illustrate the way in which political leaders associate themselves with religious practice and architecture, building a link between the two (political and religious) to the point that the political role sinuously takes over (Moore 2003; Smith 2003:17). According to Smith (2003:17), unintended consequences of these actions inculcate transformations in which "these activities [religious] serve to distinguish between different groups of elites clamoring for respect; at the same time, this

competition enables non-elites to form alliances within networks to achieve communally what would otherwise be difficult to achieve at a smaller scale."

Los Pisos Courtyard during the Late Preclassic (B.C. 400 to A.D. 250)

The formation of La Milpa's central precinct, including the Los Pisos Courtyard, took place during the Late Preclassic period. At La Milpa, Late Preclassic activity has been documented within Plaza A and Reservoir B, the Los Pisos Courtyard, and more recently in Courtyard D. Late Preclassic occupation was quite significant with Late Preclassic refuse found in every test pit in Plaza A (Hammond and Tourtellot 2003b). It was initially proposed that Late Preclassic occupation covered an area of at least 1.5 ha. (Hammond *et al.* 1998), however, this area may have been significantly larger than previously thought with the incorporation of Courtyard D (see Zaro and Houk 2012).

Los Pisos Courtyard may have served as a natural, Los Pisos Courtyard Hillock, ceremonial platform prior to its Late Preclassic and Classic period forms (Figure 5.107). Excavations revealed that the hillock was most likely half or perhaps less than half of the current platform in dimensions. It appears that Milperos used the hillock bedrock surface that had been cleared and leveled in the course of developing the central precinct (Plaza A, Reservoir B, the Los Pisos Courtyard and perhaps Courtyard D). Excavations in Suboperation A, B, I, J, and M revealed evidence of activity on the limestone bedrock in the form of a dark organic midden, anthrosol, burning activity, and the construction of a chultun burial chamber and interment of an individual, all within a 4 x 5 m (20^2 m) area (Figures 5.27-5.31 and 5.108). Late Preclassic anthrosol was also encountered

throughout Plaza A excavations, indicating that activity was also taking place within Plaza A (Sagebiel 2005:598).

The height of the Los Pisos Hillock, 3 m, above the bedrock surface in Plaza A, made this an attractive space where an audience could perfectly view the activities taking place from Plaza A, e.g., the internment and ritual reentry of Burial 1 (see discussion below). The tradition of interring persons of high rank in places of ceremonial significance and with exotic funerary items instead of under the household was established at Tikal by the Late Middle Preclassic period (600 to 350 B.C.), indicating the establishment of ranked social organization (Moholy-Nagy with Coe 2008). By 400 B.C. there is a well-entrenched convention of disproportionate wealth distribution. McAnany (2001) documents a similar occurrence at the site of K'axob. At Teotihuacán important burials are often located in the center of plazas (Sempowski 1992).

In some instances, researchers have been able to locate burials of dynastic leaders. For example, the Yune Platform at Copan where the dynastic founder, K'inich Yax K'uk' Mo', was interred. The Yune Platform thus became the locus of dynastic power that later formed the core of Copan (Bell *et al.* 2004; Sedat and López 2004). By no means can it be said that the individual from Burial 1 was a dynastic leader or the founder of La Milpa. One would need a large comparative sample of burials and/or a burial with an exorbitant number of funerary furniture. However, based on the location of this burial and his treatment in death, the individual in Burial 1 was more than likely an important member of the La Milpa community that gained elevated ancestral status through mortuary ritual, including the subsequent ritual re-entry.

The Los Pisos Hillock and Plaza A were in the process of being developed during the Late Preclassic period and it appears that this region may have been transformed into the ritual precinct of La Milpa. Therefore, the hillock may have been a designated ritual space for the interment of an important member of the community, Burial 1. The internment of the individual in the chultun chamber (Burial 1) may have further consecrated this space, as it became a focal point for the elite of La Milpa, perhaps reiterating the sociopolitical status of this individual. Social status held in life creates certain manifestations in death, for example exorbitant funerary furniture, treatment of the remains and, most importantly in the case of Burial 1, the location of the burial and post-mortem treatment of the dead (see Becker 1992:197-188; Weiss-Krejci 2004:374). It has been observed that death provides an opportunity for social order to be ritually represented and/or reshaped (Gillespie 2001:97; Goody 1962:27-28, 30). This space may have been conceptualized and constituted by the early founders of La Milpa through the public mortuary ritual (Burial 1) of an important member of the community as a way of creating social order. The Los Pisos complex was perhaps one of the charters for public rituals at La Milpa that later became circumscribed and only accessible to elites, similarly to what Fash (2002) observed at Copan, Honduras.

Late Preclassic Ancestor Veneration

According to Welsh (1988:193) "ancestor worship may well have been the primary factor stimulating many social, religious, and political acts and rituals." Welsh (1988:193) presents four lines of evidence for the practice of ancestor veneration: 1) the

presence of benches, altars, special platforms and temples over burials; 2) carbon and ash remains suggestive of rituals at the time of burial and thereafter; 3) faces and skulls and other skeletal elements (particularly long bones) are removed and possibly retained for future display and worship at appropriate times; and 4) it was practiced both at household residences and by lords in public settings stretching from the Late Preclassic and into Postclassic times.

Welsh (1988) discusses the practice of burning rituals that took place after the construction of the grave and certain periods thereafter. Items such as copal, pine and other materials were burned during rituals to honor the deceased. At the site of Altun Ha, carbon and ash remains were recovered from the top of Burials TB-4/7, TB-4/6, TB-4/1, A-1/3 and A-3/1 (Welsh 1988:191). Such dedication rituals of the ancient Maya are noted by David Stuart (1998) in a hieroglyphic text that describes fire entering the houses and the burning of incense within houses. Stewart (1998:397-399, 418) discusses the "censing" or "burning" at *muknals* (tomb/funerary buildings) as a way to renew the dwelling place of the ancestors. Stuart's epigraphic research may correspond to the initial and ongoing ritual activities taking place at Los Pisos Courtyard.

Adams (1991) notes, that ancestor veneration occurred in Izapan art of the Maya highlands. The earliest archaeological evidence for ancestor veneration in the Maya lowlands was documented at a Cuello patio group, Burial 22, during the Late Middle Preclassic (600-300 B.C.) (Hammond 1991b: 245). Burial 22 contained a middle-age to old adult male that was located in the center of the patio. Hammond (1991b:209; Gerhardt and Hammond 1991: 98) proposes that this patio group was used for communal

ritual activity in the form of ancestor veneration and cult activity. At the site of K'axob the interment in the core area of a single adult male with 2000 shell beads and bichrome pottery vessels marks the presence of a corporate group "with emphasis on descent from an apical ancestor" (McAnany 2001:132).

The burial and post-burial treatment of the individual from Burial 1, at Los Pisos Courtyard, correlates with aspects of ancestor veneration discussed above. Some of the rituals conducted, also correspond with those associated with people of higher status and/or elite, particularly the location of the burial, bundling of the individual, burning activity, post-burial ritual re-entry, and the removal of the cranium and femurs. The following sections discuss the archaeological context of the Burial 1 as well as a literature review that illustrates how the elite throughout Mesoamerica manipulated the skull and long bones of ancestors as symbolic objects of power. A literature review also illustrates that the practice of bundling the dead carries a sacred meaning that is typically reserved for people of high importance.

Excavations revealed that the Late Preclassic subterranean burial chamber (chultun) excavated into the soft limestone of the Los Pisos Hillock contained a young male, betewee 18-25 years old (Burial 1). He was placed in a sitting position, facing east towards Plaza A and possibly bundled. The chultun burial chamber was located in the southern end of the courtyard approximately, 2 m below the surface (Figure 5.108). Funerary accouterments were absent, however, ceramic paint chips and a carved shell ornament fragment indicate the presence of non-perishable artifacts. Such artifacts may have been removed during the ritual re-entry ceremony and curated for future use or used

as heirlooms (see Joyce 2000a). A dark organic soil with high phosphate levels (see Chapter 6, Table 6.12) covered the individual, perhaps indicating the presence of perishable funerary offerings. An ashy soil lens within the soil matrix and significant pieces of carbonized wood suggest ritual burning. Additionally, there was evidence of burning activity on the bedrock surface 50 cm from the chultun entrance. Carbonized wood samples found in the chultun yielded uncalibrated radiocarbon are ranges of 2150±43 B.P., 2100±37, 2120±37 B.P., and 2140±60 B.P., with 2σ calibrated age ranges of 360-56 B.C., 204-37 B.C., 210-44 B.C., and 372-42 B.C., respectively. Human bone produced an uncalibrated radiocarbon age of 1780±40 B.P., with a 2σ calibrated age range of 100 B.C.-A.D. 70 (see Tables 6.13 and 6.14).

There is evidence of ritual re-entry during which the long bones (femora) and cranium were removed after the initial burial (Cavazos 2008). This burial can be considered representative of what Fitzsimmons (2009:166) describes as the animation or ensouling of buildings and/or new construction phases. Such secondary commemorative rituals are believed to construct social memories of the dead and to advance the identities and status of the living "within the framework of allied noble "houses" and their commoner clients" (Gillespie 2001:97, 99). In this case the burial may have served to mark the engenderment of the site of La Milpa. Welsh (1988) proposed that new construction episodes mark the death of certain individuals, and that the deaths of individuals were just as important as their status. However, such an assessment can only be confirmed when the entire site is excavated and other Late Preclassic constructions can be compared with the Los Pisos Courtyard.

The removal and curation of skeletal elements, particularly the long bones and the cranium, is regarded by many as evidence for a ritually charged act, which is often only visible in elite context. McAnany (2001:133) notes that at the end of the Formative period there was an emphasis on the collection and re-interment of selected ancestral bones prior to the construction of nonresidential monumental architecture, and notes such occurrences at the sites of Altun Ha (Pendergast 1982), Colha (Sullivan 1991, Wright 1991), Cuello (Robin 1989) and K'axob. McAnany (2001) asserts that such "deposits suggest that bones of the ancestors "paved the path" to the institutionalization of religious power" and served as the "conduits through which wealth and privilege were inherited." In Pre-Hispanic Mesoamerica the femur was imbued with an individual's power—both good and bad (Marcus 2006). In the Maya lowlands this is typically interpreted as a process by which a ruler is turned into an ancestor—the transformative transition from living into ancestor (Fitzsimmons 2009:16). It is suggested that once a ruler reaches the status of an ancestor he or she is summoned and engaged in a variety of religious and politically motivated rituals (Fitzsimmons 2009: 16).

A different explanation for the missing skeletal elements of Burial 1 could be related to sacrifice. The removal of femurs and skulls has been interpreted as dedicatory sacrifice, or in some cases, individuals who have lost both their physical and social identity and are now considered "human grave goods" (Robin 1989:130; Cucina and Tiesler 2007). Although a formal *perimortem* analysis was not conducted for the individual in Burial 1, informal observations did not indicate *perimortem* trauma related to sacrifice, e.g., unhealed impact lesions in the form of fractures, stab marks and sharp

and blunt force trauma (Tiesler 2007:21). Such patterns are very different than alterations such as body dismemberment or the removal of soft tissue. Contextual lines of evidence need to be considered in conjunction with perimortem evidence, for example depositional processes, biovital attributes, minimal number of individuals per context and body parts represented (Tiesler 2007:21).

Therefore, after systematically applying and exploring such lines of evidence, I do not believe that the practice of sacrifice was responsible for Burial 1 and that all taphonomic "signatures" point to posthumous events. Of notable importance is the fact that this was a primary burial. It appears that the decomposition occurred *in situ,* based on body arrangement and presence of small bones. While the vertebrae and other skeletal elements of the individual from Burial 1 are dispersed throughout the chultun chamber, Cavazos (2008) noted that the cervical 3rd and 4th were articulated, both arms were still articulated with the clavicles, and both hands show articulation as well (Figures 5.27 to 5.32). The skull and both femurs were removed likely after decomposition had taken place, however teeth were not recovered suggesting early stages of decomposition. Coe (1990) notes the difficulty in determining the stage of decomposition when elements such as the skull and long bones were removed from Burial 80 at Tikal.

The following section discusses the representation of the skull and long bones in ritual and art, to further explore the possible status of the individual from Burial 1 and the importance of this particular mortuary ritual at La Milpa. The literature review includes archaeological examples, iconography, and ethnographic/ethnohistoric data. A caveat is always necessary when parallels are drawn between historic, contemporary, and the

ancient Maya, especially when discussing issues that deal with Maya ritual and cosmology. For instance Kubler (1967) notes inherent disjunction in the use of historical and ethnohistorical data, and Pohl (1981:513) discusses the ways in which "form and meaning may separate and rejoin in different combinations," therefore altering or giving new meaning during the recombination process.

The Representation and Ritual Use of the Human Skull and Long Bone Elements in Mesoamerica

The extraction, use, and modification of long bones, particularly femora and skull, are documented throughout Mesoamerica. Shamanistic manipulation, use as musical instruments (*omichieahuaztli*), and as war trophies are all leading interpretations for Mesoamerican societies located in Mexico (Lumholtz and Hrdlicka 1898; Pereira 2005; Seler 1991). In the Maya Lowlands, the extraction and use of such skeletal elements most often corresponds to a form of ancestor veneration (McAnany 1998). McAnany (2001:133) argues "bones of the ancestors "paved the path" to the institutionalization of religious power represented by pyramid construction." However, human long bones were cut and made into awl like implements at Piedras Negras and the practice of cutting up human long-bones is documented at Uaxactun as early as Chicanel times (Coe 1959:67). Human bones were acquired through grave robbing and sacrifice in other instances as documented by Coe (1959:67).

Conversely, the curation and use of anatomical elements as heirlooms may be considered part of the form, symbols and rituals of Maya kingship that had developed throughout the lowlands during the Late Preclassic period at Cerros, Uaxactun, Tikal, El

Mirador and Laminai (Schele and Miller 1986: 107-109). Subsequently, ancestor worship became a widespread facet of Classic Maya life—social and political. Although such a ritual may have occurred earlier, archaeological evidence and written texts are not present.

It has been documented in the art of Pre-Hispanic societies, for example as noted by Feinman (*et al.* 2010) at Aguas Calientes, Stela 1 where a ruler in elite regalia poses with a carved human femur in his left hand (Morley 1937: 50, 99). The striking murals of Cacaxtla, Puebla, Mexico, particularly from Building B dating to the Terminal Classic period, provide evidence for the use of femurs as trophies. A wall in Building B has several warriors depicted, one of whom was nick-named "Long Bone" due to the painted human femur attached to his belt (Foncerrada 1993). Art forms depicting ancestor veneration are present at the Classic site of Lambityeco, in the Valley of Oaxaca (Lind and Urcid 1983; 2010). Tikal's Altar 5, located in Court 72 associated with Stela 16 and discovered by Maler (1911), also exhibits the importance of femora and crania (Martin and Grube 2000: 46). One of the most illustrative examples comes from Yaxchilan Lintel 25. Fitzsimmons (2009:167) notes the following: "Lady K'ab'aal Xook uses a skull—possibly that of a royal ancestor, although the context is far from clear—she is said to be conjuring the presence of the ancestral deity Aj K'ahk' O' Chaak."

The first reported incident of the use and modification of human long bones was published by Lumholtz and Ales Hrdlicka in 1898, from the site known as El Palacio, near Zacapu, Michoacan. The bones encountered by Lumholtz and Hrdlicka had a "series of transverse notches along the diaphysis and a portion of them had perforations

or sectioning at the level of the epiphysis" (Pereira 2005: 293). These culturally modified human long bones (grooved bones) from Michoacan were interpreted as musical instruments related to funerary rituals for warriors who had died in battle (Lumholtz and Hrdlicka1898; Seler Eduard 1991). This interpretation has recently been revised by Pereira (see Pereira 2005 for a thorough study and re-interpretation).

Another early documented instance of femora removal noted by Feinman (*et al.* 2010) occurred when Alfonso Caso excavated the Classic period Tomb 7 at Monte Alban, in the Valley of Oaxaca, Mexico in 1932 (Caso 1932). Caso (1969: 60-61) discovered three additional cut and painted femora that he believed to be war trophies dedicated to the leader interred in the tomb. However, new research and comparative data from various sites in Mesoamerica have led to a reinterpretation of the function of these femurs from Tomb 7 (Feinman *et al.* 2010). It is now believed that they served as curated heirlooms rather than military trophies as initially proposed by Caso (1969). Their re-interpretation is based on more than 500 burial furnishings, the care that went into the removal of the femora and scenes carved on the bones (Feinman *et al.* 2010: 1098). The scenes according to Marcus (1983:285) may record details of genealogy and historical events, such as marriage, conquest and royal descent, the fundamental artistic elements elite Maya display in their political art during the Classic period.

A compelling example for the use of femora as instruments dedicated to the veneration of ancestors comes from Tomb 6 at the Classic site of Lambityeco, in the Valley of Oaxaca. Stucco panels (friezes) portray leaders wielding femurs of their ancestors as a way to justify claims of leadership and authority (Lind and Urcid 1983;

2010). A separate example supporting this interpretation comes from the Terminal Classic period site of Ek' B'alam in the northern lowlands. Fitzsimmons (2009:169) notes that lord Ukit Kan le'k was placed in his tomb with a carved human femur in his left hand with the following text: "the (physical) bone" of an individual thought to be the father of the Ek' B'alam lord.

In Tomb 6 at the site of Lambityeco a total of six individuals was interred in the tomb, two of who are thought to be the married royal elite couple that headed the household between A.D. 750 and 775 (Lind and Urcid 2010:129). Panels containing the friezes flank the altar constructed above Tomb 6, each depicting a bearded man and a woman (Lind and Urcid 2010:159). The men are rendered as complete figures, have small pointed beards, are barefoot, wear only loincloths and are adorned with earspools and necklaces (Lind and Urcid 2010:159). The women are only illustrated from the waist to the head and are shown wearing shawls, earspools and necklaces. Only the men in the portraits carry the human femur, clearly identified by the prominent femoral head. Part of the skull also appears to be an important body part depicted in the frieze; the upper frieze depicts a male with a mandible on his arm (Lind and Urcid 2010). It is suggested that the altar complex depicts the genealogy of the two main royals of the site, Lord 1 Lachi and Lady 10 Naa, and at least five generations (125 years) including the founding lineage head, Lord 2 Chilla (Lind and Urcid 2010: 162).

Although six individuals were buried in Tomb 6, Lind and Urcid (2010) believe that many of the larger and more durable bones appear to have been purposefully removed from the tomb in ancient times, particularly the femur. Based on their analysis

only 25% percent of the femurs from Tomb 6 are accounted for. Their chi-square analysis for the presence and absence of bones from all the tombs at Lambityeco indicates an underrepresentation of long bones in accordance with the findings from Tomb 6 (Lind and Urcid 2010). It is suggested by Lind and Urcid (2010) that the elite from the site of Lambityeco removed certain anatomical elements from their ancestors and used them as symbols to validate their status and to legitimize their hereditary rights. Hutton (2010) argues that this is an example that highlights one of the many processes in which people become objects.

Lind and Urcid (2010) discuss the public nature of Structure 195-4SE where Tomb 6 was constructed and suggest that friezes depicting men wielding femurs and holding mandibles were publicly displayed as symbols legitimizing hereditary rights. Lind and Urcid refer to an ethnohistorical record from A.D.1547-1548 by Frey Pedro de los Ríos in which he documents the use of bones removed from burials that were kept in "ossuaries made of mortar" (Quiñones-Keber 1995:254) by the Zapotecs in the mountains south of the valley. Furthermore Lind and Urcid (2010: 176) assert that during the Xoo phase (A.D. 650 to 850) elites may have made sacred bundles with the bones of their ancestors and kept them as heirlooms over many generations.

An example from the Maya lowlands is brought to the fore by Feinman (*et al.* 2010). The significance of Burial 85 and the subsequent construction episode that Jones (1991) considers the real beginning of the North Acropolis at Tikal was documented by the Tikal Project at Structure 5D. However, Weiss-Krejci (2011) argues that the beginning of the North Acropolis occurred much earlier and is related to Chultun 6.

Nevertheless, Structure 5D-Sub 14-3rd, was constructed on the top of a natural bedrock hill during the mid-fourth century B.C. (Coe 1965b; 7-8; 1990). This construction marks the architectural florescence of the North Acropolis and the subsequent versions of the complex. Between 200 B.C. and A.D. 1 the acropolis consisted of a large elevated paved platform on which 5D-sub 1-2nd was situated, and became the northern focus of the architectural complex as its size increased exponentially (Jones 1991). This construction episode lasted for at least 200 years of continual expansion and consolidation. From A.D. 1 to 200 a second major expansion of the North Acropolis took place during which the acropolis floor was refurbished and Plaza A and the adjacent West Plaza were first paved, as was the floor on the East Plaza shortly afterwards (Jones 1991). Burials 166, 167 and 85, located within the Acropolis, are considered to belong to the early years of this construction episode, however it is Burial 85 that is of interest here.

Burial 85, located in Temple 5D-Sub.2-2nd (North Acropolis), and the two aforementioned burials are believed to be part of a new leadership at the site (Coggins 1975:52-85) based on the appearance of the southern Maya Cauac ceramic complex. Burial 85 is considered the most important during this time due to the nature of its location (axial to the Acropolis) and richness in funerary trappings (Coe and McGinn 1963). The individual in the tomb is thought to be responsible for the construction of the North Acropolis during Late Preclassic times. According to Jones (1991:107) it is during the time of Burial 85 that "Tikal had developed its basic pattern: a southward-facing Acropolis covering the burials of important people and crowned with a large pyramidal

structure on the north, a multi-room building on the south, and one or more flanking pyramid structures."

Based on stature analysis conducted by Haviland (1967) the individual in Burial 85 was part of the initial Late Preclassic tomb burial populations Tikal and showed an increase in stature of at least 3 cm. Haviland (1967) correlates tomb burials and increase in stature with the development of hereditary dynasties of the Classic Maya periods initially documented by Proskouriakoff (1960). This new burial tradition marks the beginning of an upper class at Tikal, which exercised political control (Haviland 1967). According to Welsh (1988) along with rich burial trappings rulers of a site are buried in a single building or within acropolis areas of each site. Moholy-Nagy with Coe (2008) also views Burial 85, the first chamber burial at Tikal, as an indicator of hereditary kingship, as does Martin (2003). Consequently, Welsh (1988) believes that the individual from Burial 85 was one of the first Maya Kings at the site of Tikal and marked the beginning of Tikal's royal dynasty.

The most striking information about Burial 85 is the fact that the femora and cranium were missing. The individual was interred inside a vase in a sitting position with a jade mosaic mask substituting for his missing cranium (Welsh 1988). This burial is linked to one of the most supreme edifices of the time, 5D-Sub 1-1st (Coe 1990). Although Coe (1990) makes no mention of this individual being recovered from within a vase, he does note that the individual was bundled in a sitting position facing south and that the cranium and femora were missing. It is proposed that the face or skull were removed in order to worship and display them or to be worn as masks in rituals (Welsh

1988). Coe (1990) makes a similar argument and proposes that these particular skeletal elements were removed for preservation elsewhere due to their religious power among the survivors. The cutting and drilling of the frontal section of the cranium has been observed at the site of Cuello as early as the Middle Preclassic and at Uaxactun from the Late Preclassic to Early Classic periods (Hammond *et al.* 2002; and Kidder 1947:58). Uaxactun Burial B-12, a Late Preclassic individual, had missing frontal bones and femora, while Early Classic Burials A-20 and A-22 with missing frontals have been identified as 6th century rulers by Valdes and Fahsen (1995: 212-216).

Additional graves throughout the lowlands from elite (i.e., tombs within temples/palaces) and residential contexts with missing crania and/or long bones (i.e., femora) have been recovered from the sites of Uaxactun, Altun Ha, Altar de Sacrificios and Dzibilchaltun (see Welsh 1988 for details). While evidence can sometimes suggest sacrifice and the use of the bones as trophies, Fitzsimmons and Welsh (2009; 1988) discuss the interments in terms of reverence or political manipulation associated with forms of ancestor veneration.

More recent examples of this ritual practice come from the Northwest Palace at El Peru-Waka and at Blue Creek (Guderjan *et al.* 2003; Lee *et al.* 2004). The individual, a female, was discovered in a tomb introduced into Structure L11-38 at El Peru-Waka. She was placed in the center of the chamber probably on a perishable platform (bier) with funerary accouterments consisting of thousands of prismatic obsidian blades, 23 complete vessels, over 1600 greenstone artifacts, marine and fresh water shells, stingray spines (more typical of male burials) and probably a green stone mosaic helmet symbolic of

warfare (Lee *et al.* 2004). Lee *et al.* (2004) believe this woman may have been a K'alomte or military chief during the Late Classic. There was evidence of post-mortem ritual re-entry during which the skull and the femur bones were removed (Lee *et al.* 2004).

Landa notes the use of skulls of deceased ancestors and how skulls were retained as idols by the descendants for future use in religious ceremonies (Tozzer 1941:131, note 613).

> They used to cut off the heads of the old lords of Cocom, when they died, and after cooking them they cleaned off the flesh, and then sawed off half the crown on the back, leaving the front part with the jaws and teeth. Then they replaced the flesh which was gone from these half-skulls by a kind of bitumen, and gave them a perfect appearance characteristic of those whose skulls they were. They kept these together with the statues with the ashes, all of which they kept in the oratories of their houses with their idols, holding them in very great reverence and respect. And on all the days of their festivals and rejoicings, they made offerings of foods to them, so that food should not fail them in the other life, where they thought their souls reposed, and where their gifts were of use to them.

The reading of the text from Tikal's Altar 5 depicts Jasaw Kan K'awil, a Tikal ruler and a lord affiliated with Calakmul, presiding over the exhumed bones of a noble lady that was placed in Complex N west of Temple III in A.D. 711 (Martin and Grube 2000: 46). A skull and bones were located under the accompanying Stela 16, however it is not known if the human remains belong to the noble lady described on Altar 5 (Rice 2004). McAnany (1998) believes that this monument depicts the opening of the royal tomb. The text on the monument identifies the royal woman as Topoxte (Stuart and Houston 1994) and also the verb *pas-ah* "to open." The two lords are standing over the

skull and long bones (femurs) of the noble lady, perhaps corresponding to the postmortem removal of these anatomical elements.

The skull and cross bone motif is repeatedly associated with ancestors. Carlson (1981:193) noted that this motif "signified more than death and decay. It was a sign of completion and rebirth from the ancestral bones." According to McAnany (1998:46-47) this motif is "symbolic of generational continuity and the rights and privileges that are inherited from the previous generation, the crania and/or long bones are potent images symbolic of social order and orderly successions, be they transmission of royal power or of the fields and orchards of wealthy commoners."

Ancestor veneration in this medium is mostly confined within elite circles, however one example was present in the literature, at the site of Milta Fortress in the Tlacolula arm of the Valley of Oaxaca (Feinman *et al.* 2010). A cist grave (Burial 13) dated to the Middle Classic period (A.D. 500 to 700), found at the site of Milta Fortress, was recovered within a domestic non-elite context under the floor of a room. There is clear evidence of burial disturbance in the course of remodeling and ritual re-entry during which the right femur was removed (Feinman *et al.* 2010). Feinman (*et al.* 2010) are convinced that this act indicates a reverence for the interred individual and that those opening the burial were his descendants. The reuse of this building at Milta Fortress indicates the continuity not only in the material culture, but also in familial associations. They propose that the individual was obviously not a ruler nor have high status, but he may have been the founding member of a household group and that his descendants retrieved his femur as a physical manifestation of ancestry (Feinman *et al.* 2010).

The Practice of Bundling the Dead in Mesoamerica

The individual in Chultun Burial 1, from the Los Pisos Courtyard, was placed in a sitting position, perhaps wrapped and bundled as indicated by the articulation of the hands and the position of the rib bones and clavicles (Cavazos 2008). It appeared as though the person was placed in a sitting position with his arms bent at chest or stomach level—such an articulation was perhaps preserved through bundling. The placement of individuals in the sitting position is a common burial practice from the Late Preclassic to Postclassic periods and perhaps as early as the Middle Preclassic. This ritual practice occurs throughout the Lowlands, mostly in elite contexts, for example the "Lady in Red" from the site of Colha (Meskill 1992). McAnany (2001:132, 133) observes that by 200 B.C. "tightly wrapped seated and flexed burials that could be carried in ritual processions and displayed for a period of time before final internment" may be part of Formative period mortuary rites for village leaders, as a way to individualize them and to create ancestors. However, Robin (1989) has confirmed this burial position has at Cuello in non-elite context.

Evidence for bundling the dead occurs within the archaeological and iconographic record and in ethnographical and ethnohistorical accounts. Gillespie (2001:96) notes that cloth bundles throughout Mesoamerica are considered containers for curating that which is valuable and/or sacred. The sitting position is often employed for members of the dynastic class (Bell *et al.* 2004). This position, it is thought to, "reproduces a regal

position of a headman, chief, or lord seated on a stool, mat or throne" (McAnany 1998:276). Although bundling has been interpreted as a ritual act it may also have served to keep the individuals in a sitting position.

Textile specialist Robert Carlsen (1986) and other colleagues analyzed the mineralized textile remains from Tomb 19 and 23 at Rio Azul and concluded that a variety of textiles were wrapped multiple times around the individuals (Carlsen 1986). Because the skeletal remains were heavily covered in cinnabar, Carlson (1986:126) proposes that the skin of these individuals was covered in cinnabar, which then transferred to the skeletal remains upon the decomposition of the flesh and the cloth. Of critical importance to the analysis was the determination that some of the textile fragments recovered from Tomb 19 were rough textiles probably made of hemp or sisal. These plant fibers typically produce textiles only associated with non-elites (Carlson 1986:147).

Dr. Fred Valdez Jr. (personal communication, October 2012) asserts that the individuals from Tombs 19 and 23 were probably wrapped in the textile that was painted with cinnabar and upon decomposition of the textile the cinnabar was transferred to the skeletal remains, a proposition that is also acknowledged by Carlsen (1986) as well. These are both very interesting interpretations concerning the treatment of the dead in Classic Maya times and the ritual importance of cloth in the ethnographic literature.

At the site of Tikal the individual in Burial 195, located in 5D-32-1st, was heavily shrouded and bundled (Coe 1990). Excavator Jorge Guillemin (Coe 1990) described how three layers of textile material were present around the burial. Two royal burials placed

in sitting positions and bundled have been documented at Uaxactun and Tikal. Early Classic Burial CI at Uaxactun where an adult male was bundled and placed in a sitting position on a platform, and perhaps at the site of Tikal, Burial 48 of Siyaj Chan K'awiil II (Stormy Sky)(Coe 1990; McAnany 1998). McAnany (1998) proposes that the wrapped and bundled Stormy Sky may represent a secondary and bundled version of the king himself. Late Classic examples of bundled rulers appear in royal interments at Tikal, Copan, Tonina and Calakmul (Fitzsimmons 2009:76).

Fitzsimmons (2009) notes that most of the Maya lowland examples of bundled royal corpses are extended, not flexed, and believes that the practice of bundling is not necessarily for easier transport, but was part of a preparatory rite for interment. Fundamental differences in bundling practice in the lowlands have been documented. For example, in some cases, the head is left exposed during the wrapping and bundling process. It is not known if the bundled royals played strictly metaphorical rather than physical roles in the political and ritual rites, particularly as war effigies during battles as was the case with the Aztec (Fitzsimmons 2009:79). Fitzsimmons (2009:80) uses cross cultural and ethnographic comparisons to argue that the Classic Maya may have used their bundled ancestors against their enemies as well as the possible occurrence of using ancestor bundles in migrations and pilgrimages as did Postclassic Quiche descendants.

Mummy bundles of elites at Teotihuacán served as effigies of deceased ancestors within open funerary shrines and are considered an important part of Teotihuacán's sociopolitical structure (Headrick 1999). Diego de Duran documented the Tarascan and Mixtec bundle preparation practices and Headrick (1999:69) suggests these

Mesoamerican practices may be comparable to Classic Maya. Headrick describes how the Purépecha prepared the bodies of their deceased kings by taking their corpses at night and placing them on wood and pine needles for burning. The bundle or body of the king was then carried four times around an unlit funeral pyre to the sound of playing trumpets and singing (Headrick 1999). His ashes were then placed into a cloth bundle and bound; this bundle was then decorated with a funerary mask and other funerary items, such as gold, feathers, turquoise and shell.

Fitzsimmons (2009:78) remarks on the way the Mixtec cremated kings within bundles, which were then used as oracles and "battle standards" or protective effigies. Fitzsimmons (2009) also cites the use of ancestor bundles among the Aztec and how they may have served a similar purpose as in the case of the Mixtecs—protective effigies. He notes (2009:78) that: "the Aztec king Tlacaelel was embalmed, set on a litter, and brought forth in battle to subdue the site of Tliliuhquitepec" where he served as the supreme ancestor of the Aztecs. Huitzilopochtli, the Aztec god, was also bundled and Postclassic codices illustrate various Aztec gods as wrapped bundles, wearing masks and preserved in cloth (Fitzsimmons 2009; Pohl 1984). These Mesoamerican examples support the broad cultural traditions in the region.

Los Pisos Courtyard and Ancestors

Although studies regarding the use and manipulation of skeletal elements and bundling from throughout Mesoamerica were presented in the previous sections, it appears that this practice of ancestor veneration is chronicled as part of Maya religious

ideology for at least 2000 years, from the early Late Preclassic and into Postclassic and Colonial periods, and more than likely occurred much earlier than the Late Preclassic. Comparative studies presented above conclusively support the idea that the removal of the cranium and femora from Burial 1 was part of politically potent ancestor veneration rituals. Moreover, such comparative data also support that the burial and post-burial rituals associated with Burial 1 are indicative and associated with people of high status. Therefore, I would be inclined to say that the individual from Burial 1 was an important person of the La Milpa community, perhaps someone in a leadership role of some kind.

Excavation data indicates that at least two heavily charged rituals separated by time are associated with this individual. First the mortuary ritual, followed by ritual re-entry during which the skeletal elements were removed. For Shanks and Tilley (1982) the human corpse used in ritual action was the dominant symbol, which asserted the collective over the individual and forged the identity and boundedness of the community that constituted a denial of asymmetrical power relations. It was through these ritual actions that social authority was represented as naturalized, legitimate and as an unchallengeable order (Shanks and Tilley 1982). A similar argument is made for the rituals associated with Burial 1. However, it was the ritual and the ritual setting, the cleared hillock (altered and built environment) that provided a public integrative ritual arena for social interaction from which community identity, social cohesion and asymmetrical power relations were simultaneously created.

Plaza A, at La Milpa has been called the zone of ancestral occupation by Hammond and Tourtellot (2003b). It is clear that Los Pisos Courtyard grew and

expanded in concert and was a vital part of the ritual landscape of Plaza A. The space, on which the Los Pisos Courtyard was built, became a sacred place from which the descendants of this important individual (Burial 1) could lay claim to the "tangible and intangible property attached to the person of the deceased" (Gillespie 2001:96). Subsequently, the courtyard may have become the ancestral stage from which the elite of La Milpa claimed their natural authority and legitimacy through the constitution of this ritual setting and continued association with this locale. The elite culture drew upon an inventory of broadly distributed and pre-existing ideas and symbolic forms that eventually led to appropriation of order, legitimacy and wealth. In the case of the Los Pisos Courtyard they appropriated a built environment that was laden with the symbolic power of their ancestors.

Continuity in renovation and use of the Los Pisos Courtyard can be understood as a way of ensuring the perpetuation of heritage. For example, La Milpa leaders may have engaged with ancestors and acted as custodians of the group heritage, enacting and reenacting connectedness with ancestors to expand the boundaries of the lineage through continued expansion and use of the Los Pisos Courtyard (e.g., Bourdieu 1977: 38-39, Hutson 2010; 116). Accordingly, the Los Pisos Courtyard was created, expanded, and continuously used from the Late Preclassic and through the Late/Terminal Classic period and may have been used to forge a relationship with and to conjure up important ancestors. McAnany (2001:143) proposes that such incantations increase ones *k'ul* or power. Carmack (1981: 352) emphasized the importance of the essence of ancestors as a great moral force in the universe, and the cemetery as an important site for ancestor

rituals in Quiché Maya society. Welsh (1988: 194) characterizes this as "a continued connection between where ancestors were buried and where the rituals were to be conducted."

Late Preclassic and Protoclassic Features

Following the ritual interment (Burial 1), the 3 m high Los Pisos Hillock and Plaza A were concurrently paved, although the extant of paving is not known for Plaza A (Sagebiel 2005). It was during this time that the natural hillock was in all likelihood transformed into a formal platform. Although the dimensions of this platform are not known, it was smaller than its Early Classic and Late/Terminal Classic period forms. It is believed that the northern end of the courtyard was not in use, and perhaps less than half of the current day platform was used from Late Preclassic to Protoclassic times. It was not until the Early Classic period that the courtyard was paved from north to south.

At La Milpa, Late Preclassic components in Str. 1 and Str. 5 have been noted as well as a Late Preclassic stela cache (Stela 10), and the Late Preclassic Str. 1-1 in the Los Pisos Courtyard (Figure 5.18), suggesting that the central precinct was taking form (Guderjan 1991a: 11-13; Hammond and Hammond and Tourtellot 1993:72; Tourtellot *et al.* 1993:102; Tourtellot *et al.* 1994:121). Additionally, Courtyard D has a Late Preclassic platform that can be considered the first evidence of monumental architecture at La Milpa (Zaro and Houk 2012).

A Late Preclassic Structure, 1-1, was uncovered three meters south and 65 centimeters above Burial 1. This building was only partially exposed and it was not clear

how far north it extends, if it extends more than 1m north, it was partly built over the chultun chamber (Burial 1). This building was part of the first paving episode in the Los Pisos Courtyard. The paving episode indicates that the Los Pisos Hillock was transformed into a formal platform and increasing in height. Perhaps this Str. 1-1 was reserved for important ritual activity or as a shrine, due to its semi-central location on the platform.

It is not clear if the building had very low masonry wall (braces) and was a pole and thatched construction or if it was a complete masonry building (Figures 5.18). A 10-centimeter thick layer of burned marl (Figure 5.20) covered this structure. The burned marl contained small concentrations of ceramics and some carbonized wood. It not known if this building was ceremonially killed or if it burned down accidentally. Nevertheless, the practice of burning marl on structures has been interpreted as termination ritual activity, during which marl is scattered and then burned (Ambrosino 2003; Freidel 1986; Garber 1981; Guderjan 2003 *et al.*; also see Mock 1998 concerning such deposits). The associated posthole (Figure 5.4) indicates a pole and thatched construction or perhaps awning was attached to a masonry construction.

A thick dark midden was discovered under the terrace of this Late Preclassic building. It is not clear if this is an *in situ* midden or if it was brought in from elsewhere to begin the filling process and the construction of the platform. In any event this deposit is stratigraphically associated with the burning activity that was present near the surface of the chultun burial chamber. Two oval bifaces made from Northern Belize chert were discovered in the southwest corner of the building terrace excavations. One was nearly

complete while the second was a partial fragment that appears to have been recycled for flakes. Their preservation and location may be representative of caching activity.

The lack of horizontal excavations hinders the interpretations that can be made in terms of other architectural elements in the courtyard during this time. Perhaps it was organized as a patio unit consisting of houses, outbuildings and ritual structures as seen at various sites (Cuello, Nohmul, Cerros and Seibal) throughout the lowlands during this time period (Gerhardt and Hammond 1991; Wilk and Wilhite 1991). It is obvious that the construction of the platform took place; both the courtyard and Plaza A were simultaneously expanding vertically and perhaps horizontally as well. The configuration of the courtyard during this time was much different than what is present during the Early Classic and later times. The platform was much smaller, perhaps less than half the current platform size, and activity appears to be centralized.

Although Sagebiel (2005) did not observe the presence of a "pure" Protoclassic (A.D. 150-250) context at La Milpa, within the Los Pisos Courtyard at least two have been dated, a formal ritual hearth and a burial. A Protoclassic burning pit feature (Figures 5.14-5.16) measuring 55 x 60 cm in diameter and 15 cm deep was constructed on the second plaza floor located 50 cm above Str. 1-1. The circular feature in question made from limestone rocks measuring approximately 20 cm in length (Figure 5.11). There were high concentrations of ash, carbonized wood, large ceramic sherds and a few chert flakes within the feature. This feature may have functioned in domestic contexts, as is the case for Cuello (see below), however two of the largest sherds were from a "mammiform tetrapod" vessel (Figures 5.19 and 5.20). Mammiform tetrapods are mostly

recovered from ritual and/or funerary context. Three pieces of carbonized wood yielded, uncalibrated radiocarbon ages 1887±38 B.P., 1848±37 B.P., and 1853±37 B.P., with 2σ calibrated radiocarbon ages of A.D. 51-230, A.D. 74-244, and A.D. 75-240, that correspond to a Protoclassic date. Dr. Takeshi Inomata found similar features that date to the Middle Preclassic period at the site of Ceibal, Guatemala (personal communication 2008). Such features are also present at Cuello during the Middle Preclassic occupation, however they are lined with clay, stones and the base of a large pottery vessel and are believe to have functioned as domestic fire pits (Gerhardt and Hammond 1991). At Cuello such features become obsolete as the patio increasingly becomes a ceremonial stage.

At La Milpa and throughout the region Protoclassic pottery is not recovered in a domestic context (Kosakowsky and Lohse 2003:8). However it has been documented in a domestic context at sites like Tikal (Culbert 1993) and Barton Ramie (Gifford 1976). Protoclassic ceramics are considered a subclass of elite trappings of a political and /or ritual nature used by emerging elites during the Protoclassic period (Brady *et al.* 1998). It is argued that mammiform tetrapods served as a currency among the elite circles and were used to re-establish trade and political alliances which had collapsed during the Late Preclassic period, particularly after the downfall of El Mirador and the trade networks associated with this colossal Late Preclassic site (Reese-Taylor and Walker 2002).

Their occurrence throughout northern Belize and parts of the Petén is indicative of tight interactivity during this time period (McAnany 2001). Some vessels, particularly large serving bowls, may have served as emblematic symbols used for feasting

(McAnany 2001:136). At the sites of Colha and Kichpanha Protoclassic ceramics are found in elite contexts and are used in mortuary practices and termination ritual activity (Meskill 1992:156). The large amount of ash and carbonized wood, the various layers of large ceramic sherds and the types of sherds (mammiform) imply that the feature at Los Pisos Courtyard was a ritual-burning pit used for multiple ritual events. It is believed that during the Protoclassic the size of the courtyard only changed vertically and perhaps only half of the current platform constituted the Los Pisos Courtyard during this time. Construction and use continued to take place in the center of the platform. It is conjectured that the platform continued to function as an open integrative ceremonial stage where ritual performances were visibly accessible to the La Milpa community.

A Protoclassic burial (Burial 2) was located on the northern end of the courtyard, however Late Preclassic and Protoclassic paving episodes present in the southern end of the plaza were not present there, indicating different construction programs between the northern and southern sections of the platform as previously suggested. The northern end of the courtyard may not have been in use or the occupied area is situated much deeper and separated by the undulating bedrock during this time. It appears that Burial 2 was ritually deposited during a large infilling process prior to the large paving episode of the Early Classic period. The burial was located within an ashy matrix containing carbonized wood within large boulder construction fill. The ash and burned wood are indicative of a ritual burning ceremony.

One uncalibrated radiocarbon age of 1890±40 B.P., with a 2σ calibrated age range of A.D. 20-220 corresponds with the radiocarbon ages from the ceremonial hearth

in Suboperation M. Nearly 1 m of large boulder construction fill and sascab fill covered the burial (Figure 5.59). This burial was probably placed into the construction fill as a dedicatory element to celebrate the significant and new construction of the Early Classic period during which the entire courtyard was paved. Excavations ceased because of time constraints and because the burial extended north underneath Str. 14. Nevertheless it is proposed, based on the location of the burial within the Los Pisos Courtyard, and the placement of a cache (an altar or stela fragment) above it, that the individual in this burial was a personage of high status, however not comparable to the person in Burial 1.

When the individual in Burial 2 was deposited in the construction fill, the platform may have been a ritual locus and transforming into part of the ceremonial precinct of La Milpa. Such an interpretation may be supported by the burial of an important member of the La Milpa community (Burial 1), the burning of Str. 1-1, and the construction and use of the ritual hearth. The vertical excavations conducted only provide a small glimpse at what was taking place within this space. It appears that this space became an arena for the enactment of rituals open to the occupants of La Milpa in the Late Preclassic period. The architectural configuration is significantly less monumental than in later times, particularly the Late and Late/Terminal Classic periods.

Discussion

During the middle Late Preclassic period the central ceremonial center of La Milpa (North Group) may have been established. The areas of Los Pisos Courtyard, Plaza A, Reservoir B, and possibly the southern courtyards, particularly Courtyard D,

were being developed, possibly in the form of clearing and leveling. In the Los Pisos Courtyard and Plaza A, evidence of anthrosols indicates occupation and activity areas in this region prior to paving and construction. The current platform of the Los Pisos Courtyard is approximately 4 m above the current plaza surface, the top 2 m were artificially constructed with construction fill and plaster floors. Beneath this artificial construction was a 3 m high natural hillock (the Los Pisos Hillock). Recent excavations in Plaza A revealed that the bedrock is approximately 1 m below the present ground surface, indicating that during Preclassic times the natural platform of the Los Pisos Courtyard was approximately 3 m above the bedrock in Plaza A.

The Late Preclassic Burial 1, Str. 1-1, ritual hearth, and Burial 2 demonstrate that the configuration of the Los Pisos Courtyard changed through time. The hillock on which the platform was constructed was significantly smaller than the current platform, perhaps half the size, and it appears that architectonic activities and rituals were taking place within the center of this platform. The built environment, activities and the attitudes of the people occupying this place correlate to the shifts in social and political relations during the establishment of this urban center. The platform, both natural and paved and the rituals and activities performed within it served as a mechanism for binding the polity together and consolidating community identity through co-presence by physically bringing people together beyond the daily circles of interaction (Giddens 1984). For example, public space is believed to be not merely a social space but also a place "connected with the symbolic manipulation of access by crowds of people" (Smith 2003:19).

Its interconnectedness with Plaza A and simultaneous paving program indicate that both Plaza A, and the Los Pisos Courtyard were occupied during this climatic phase. Layouts of architectural complexes were generally open during the Late Preclassic period and it was not until later times that they become closed and secluded (Fred Valdez Jr., personal communication 2012). Such a phenomenon can be suggested for the Los Pisos Courtyard during the Late Preclassic period. There is a high probability that it was an open and inclusive place where members of the burgeoning La Milpa community gathered to view some of the most significant rituals that engendered the identity of elites and non-elites, while simultaneously forging a community identity and inaugurating a social and political framework already in place throughout the Maya region (e.g., Cerros, Cuello, El Mirador, Nakbe, San Bartolo, Tikal and Uaxactun).

Chapter 8: The Architecture of the Los Pisos Courtyard: Late/Terminal Classic Commemoration Complex and Temporary Residence

> …Many environments from other cultures and periods seem not merely strange, and unfamiliar, but even chaotic. However, since built environments are a product of purposeful human (and, earlier, hominid) activity, and of culture, they can never be chaotic, in the sense of being random; there is always an order present. What are regarded as chaotic environments are those that are not understood, not liked or felt to be inappropriate for a given observer or group. It then becomes necessary to understand the particular order and its underlying spatial and conceptual organization (Rapoport 2002:460).

This chapter explores and considers the form, function and location of "palace-type" complexes within Maya site centers. "Palace" complexes consist of a number of building categories, some of which do not fall within the "palace" category, e.g., one-room structures and shrines. Therefore, this chapter incorporates the discussion of one-room buildings and structures designated as shrines. However, ultimate interpretations and conclusions regarding the function are based on the complex as a whole. The call to conceptualize and investigate whole complexes rather than isolated structures has its roots in Harrison's work at Tikal's Central Acropolis (Plank 2003). This chapter focuses on the Late/Terminal Classic period architecture. The Late Preclassic structure located in the southern end of the courtyard and two Early Classic structures are considered and addressed in Chapters 7 and 9.

The Los Pisos Courtyard sits on a platform that measures approximately 70 x 55 m (north-south and east-west) and 5 m in height. The platform complex consists of four Structures: 9, 13, 14 and 15 (Figure 4.2) with an interior focus. However, Str. 9 may

have had doorways on both the eastern and western façades and played a role within the Los Pisos Courtyard and Plaza A. A substructure elevated each building with its own individual staircase for access, and all the buildings are separate entities. The open space of the courtyard measures 15 m (east-west) x 35 m (north-south)—525^2 m. The buildings are of different height and length indicating separate functions for each and that a variety of activities were taking place within the courtyard.

Structure 9, a range structure, dominates the eastern side and measures approximately 33 m in width at the base and 72 m in length. Its height when viewed from the western façade is 10 m and when viewed from the eastern façade is approximately 18 m. This structure is the most complex of the four buildings, and appears to have an addition and an attached building. The southern end of the structure is comprised of a terrace measuring 10 m x 10 m, and only half the height of the original range structure. According to Norman Hammond (personal communication February 10, 2011) this terrace was a late addition to Str. 9. Attached to the north end of the structure is a three room building that is lower than the main structure. This building connects with a city wall that forms the northern precinct perimeter of Plaza A. LaMAP designates this as both a separate Str. 83 and at times as part of Str. 9. This section of the structure was not mapped during this dissertation project, however based on the maps produced by LaMAP it appears to be approximately 38 m in length and 18 m in width at the base. In my opinion this building is attached to Str. 9, however it probably served a separate function, and will not be considered as part of the courtyard.

Structure 15, the second largest, is located on the western edge and is 8 m wide at the base, 25 m in length and 7.5 m high. Structure 13, located on the south side, is nearly 5 m wide at the base, 4 m in height and 23 m long. Structure 14, the smallest structure within the courtyard, is located on the north end and is 13 m square at the base and approximately 5.5 m in height. The formal entrance into the courtyard may have been up, into and through the large range structure (Str. 9)—perhaps through a portal vault. Guderjan (1991a:8) states "The most impressive aspect of the Acropolis Courtyard is its setting above Plaza A with its formal entrance into the plaza," while Hammond (*et al.* 1998) suggest that the entrance was located on the southeast end of the platform but was blocked of by the construction and/or expansion of Structure 8. A southeast entrance was most definitely the case during Late Preclassic, but may have changed during Early Classic times.

To the west of the Los Pisos Courtyard is a commanding viewshed of the Petén region, a principal water reservoir (the Far West Bajo) and the residences below. Additionally, the occupants of this courtyard could view and possibly monitor and surveil the small flats, which are known to have served as prime agricultural areas in antiquity. In the 1970s this area was favored for marijuana agriculture (Tourtellot *et al.* 1994). When cleared, the north view would have permitted a panorama of La Milpa North, one of the four middle managerial satellite sites that is part of the quincuncial Maya cosmogram (Tourtellot *et al.* 2000; Tourtellot *et al.* 2002). To the east the courtyard overlooks Plaza A, the colossal Temples 1, 2, 3, and 10, monuments (stelae) as well as the two ball courts. Such a panopticonic view is present in Maya site planning

organization at Piedras Negras Acropolis. Additionally, it is proposed that the Main Plaza at Aguateca with its numerous stone monuments provided an ideal environment for theatrical performance (Aoyama 2011). A similar scenario likely unfolded within Plaza A at La Milpa. Access and visibility into the courtyard was very restricted during the Late and Terminal Classic times.

A narrow alley, one-meter wide, between Structures 14 and 9 and between Structures 14 and 15 suggests a pattern of restricted access in the northeast and northwest end of the courtyard. A wall enclosing the northwest side also suggests that significant effort was made to close the area from the rest of the population. Additionally, access from the western side is nearly impossible due to a steep gradient that leads to a drainage system. A total of three terraces are present on the northwest side of the complex.

The prominent and central location of the Los Pisos Courtyard, particularly its association to the ceremonial precinct, support the idea that this space held great importance and was a restricted place reserved for the most politically important elites of the La Milpa community conceivably during times of ritual in Plaza A (e.g. Guderjan *et al.* 2003:19-21). This complex became a very exclusive locale through vertical height and monumentality by the Late/Terminal Classic period. McAnany (2001) asserts that monumentality can be affiliated with seats of power. Classic Maya palace scenes, according to Houston, (1998:343) show certain figures of higher rank occupying physically higher locations than those of low status.

It is believed that palatial complexes, placed in symbolically paramount locations, conveyed specific messages of power from those who occupied these spaces. Such built

environments were “reinforcing the strength of their sovereignty in the minds of both peers and subordinates” (Ashmore 1992:173). Hammond and Tourtellot (1993:72) and others propose that the courtyard served as “a royal residence compound, defensible and difficult to access.” However, this statement was made prior to the discovery of the thrones in the South Acropolis.

Range Structures 9 and 15: “Palace-Type” Structures

The lack of excavations and architectural data from Str. 9 has limited the interpretations that can be made concerning how this building was used and the possible activities taking place within the Los Pisos Courtyard. Therefore, my conclusions regarding activities are based on the basic form and location of the building. While excavations of Str. 15 provided information pertaining to the exterior form of the building, the interior of the building plan was not excavated. However, based on the collapsed rooms and width of the building it appears to be a tandem building with multiple rooms. The analysis of Str. 9 and Str. 15 has to be based more on intellectual grounds than on factual evidence. Structure 9, is more representative of what archaeologists call range structures. The location and superficial form of Str. 15 indicate that it too can be considered a range structure.

The word “palace” has been part of the Maya literature lexicon since the nineteenth century (see Chapter 1). Today a “palace” also known as a range structure (Coe 1967:55) is defined as well built, vaulted individual buildings that are multi-chambered (consisting of multiple-rooms), or gallery-like (Andrews 1975; Kurjack

2003). "Range-type building" is a term devoid of implied function(s) and was first introduced by Coe during the Tikal Project (1965b: 26). Nevertheless, the term "Palace" continues to be used to describe these buildings' form and/or function(s).

Evidence for this architectural form dates back to the Late Preclassic period. Hammond (1985) documented at least three range structures (Structures 1, 17 and 21) at the site of Nohmul. Matheny (1986) also found a series of large stone structures, including "palaces," at the site of El Mirador that date to this early time period as well. However, some believe the earliest "palace" construction first occurred during the Early Classic period, e.g., at Tikal and Structure B-2 at Uaxactun (Valdes 2001:144). The "palaces" of the Late Preclassic functioned as the "sacred residences" of the king; while in later times (by the Early Classic) the function of palace structures expanded and occupied by various members of the royal family (Valdes 2001:144). By the Classic period, palace constructions were no longer exclusive to the king and other nobles with royal lineage also built palaces (Valdes 2001:144).

Defining and establishing the courtly activities in "palace" structures and/or complexes, particularly in ceremonial precincts, has long been a point of contention and highly conjectural at times (see Chapter 1). Defining how earlier renderings of such complexes may have functioned within growing urban centers is equally complex. The term "palace" has been the most problematic in terms of use and concept. The most challenging aspect, as has already been pointed out, lies in the European bias inherent in the use of the term "palace." A second problematic aspect is the conflation of morphological descriptions and functional inferences. The term "palace" tends to be

confusing due to the fact that it is sometimes implies function, while at other times denotes a specific architectural entity (Harrison: 1970:203). For this research, the term "palace" refers to a building class that was commissioned and occupied by the ruling elite and other elite classes, and the locus of a variety of courtly activities.

At Tikal, range structures exhibiting a tandem/transverse plan layout (Category 1) had the highest distribution of "sleeping benches" in interior rooms, making them best suited for continuous or permanent residence (Harrison 1970). Such buildings may have served as priestly residences and schools (Harrison 1970: 251 and 270). Based on Harrison's (1970:152) analysis, these buildings "show the greatest number of attributes related to change; the highest number of "benches, including some which may have been beds; windows; provisions for traffic control; and the greatest amount of expansion both horizontal and vertical." The benches in these rooms were centrally located and may have functioned as altars due to their size. Becker (1971) makes a clear distinction between small benches and the large benches found in range residential structures.

Category 1 buildings in Tikal's Central Acropolis may also have served as priestly residences and/or seminaries (Harrison 1970:299). However, Harrison does stress that other functions are not excluded from buildings in either category. For instance all the Tandem/Transverse structures also contain non-domiciliary "throne benches." Ethnographic data suggest that these rooms served as reception rooms or perhaps rooms used to settle civic disputes (Harrison 1970:259). Tandem (Category 1) buildings may have also functioned as storehouse, perhaps for ritual paraphernalia (Harrison 1970:300).

Tandem plan (Category 2) structures in the Central Acropolis only accounted for seven percent of the distribution of possible "sleeping benches," suggesting a more temporary nature to them, with only a few permanent occupants (ibid: 1970:300). Tandem buildings are thought to have functioned as "Men's Ceremonial Houses" or "Boy's Premarriage Houses," and may have housed a large number of people if located within close proximity to temples or within the temple precinct (Harrison 1970). The residential function of the two categories (1 and 2) is based on tentative material culture associated with eating, sleeping and hygiene. The placement of burials within these structures is an important component that also stresses a residential function.

According to Becker (1971: 181) range structures with multiple doorways into single chambers, benchless, with cord holders, square in plan, without interior platforms and associated with large architectural groups served religious purposes. Like many, Becker (1971) argues for residential function of range structures at Tikal. This is due to built-in benches used for sleeping, and smaller benches that served as shelves. Additionally, at Tikal, benches took up most of the space, leaving very little room other than the bench surface itself (Becker 1971: 186). Separate doorways for individual rooms are also another indicator of residential use (Becker 1971). Additionally, ceramic wall insets made from reworked olla necks imbedded in the inside walls of either side of each doorway, are thought to have functioned as fasteners for hangings close to doorways. However, at Uaxactun these accessories are only found in structures identified as temples (see A.L. Smith 1950: 78).

In addition to resolving the functional interpretations for such structures, questions concerning who resided and/or used such buildings, e.g., rulers, non-ruling elite or the priestly class, was also approached. For example, Satterthwaite (1937:18-23) has noted that certain bench styles, specifically ones centered in the rooms and with red-painted backdrops or screens on the walls may have served as "thrones." Suggesting the possibility that buildings with such "thrones" were reserved for rulers. Structures prescribing to the tandem/transverse were used as family permanent residences, while tandem structures served as temporary residences for a variety of social groups. For Harrison, the distinction between the two categories, familial or specialized residential function, would serve to differentiate between social groups (e.g., congregations of priests versus family units). Harrison considered Structure 5D-46 a "family residence" because of the associated burials and caches.

Most of the tandem/transverse buildings in Tikal's Central Acropolis were considered priestly residences and/or seminaries due to the lack of burials and caches and the use of elaborately decorated upper zones and presence of graffiti (Harrison 1970:299). Harrison (1970: 265) notes that, in ethnohistorical literature, special buildings were used as temporary living quarters in historic Mesoamerica for men under conditions of "continence" and "fasting," during which "no food was present and the living conditions seem to have been Spartan." It was assumed that the rigorous nature of such chaste activities did not require interior furniture (ibid 1970). Furthermore, he argues that these buildings were located near temples. The spatial location of tandem buildings, near major temples, supports the sixteenth century ethnographic analogy of "men's

Ceremonial House, " and the proposition that these buildings may have also served as temporary residences. Large numbers of people may have temporarily lived in these building forms (Category 2).

The only building that has been assigned residential function in the Central Acropolis of Tikal is Structure 5D-46 (tandem/transverse). This function is supported by evidence of burials, added patio rooms and possibly evidence of cooking in the north patio. A more recent reassessment (Harrison 2001) for the use and function of the Central Acropolis falls in line with the initial (Harrison 1970) interpretation. Harrison (2001) argues that Tikal's Central Acropolis served multiple functions, both permanent and non-permanent residences. He also includes a ritual component.

Structure 9 is comparable within Harrison's Category 1 or 2 residential buildings. Structure 9, most likely had a double row of rooms (tandem) or perhaps large galleries. However, according to Becker (1971) large galleries would have excluded a residential capacity. Structure 15 may also fit into Harrison's Category 1 and 2. Thus, at least two buildings within the Los Pisos Courtyard may have functioned in a residential capacity. However, the lack of excavations precludes further interpretations regarding these buildings. Like many range structures in the Maya area, these buildings may have served multiple functions through time.

Dr. Takeshi Inomata (personal communication 2008) suggested that Str. 15, may have served as the throne room and receiving area for diplomats and court members. When visitors entered the courtyard from Plaza A, through the portal vault of Structure 9, the first spectacle would have been the king sitting on his throne—this scenario is based

on pure speculation on my part. Additionally, there are a number of complexes that may have served this purpose throughout La Milpa, particularly in the South Acropolis and two complexes on either side of the acropolis. These three complexes have throne rooms that date to Late Classic times. However, it is not known if they are contemporaneous and/or if certain thrones were used under certain occasions depending on their locations and audience. For example, if Str. 15 functioned as a throne room, it was perhaps used during times of high ritual taking place within Plaza A.

Structure 14: Shrines

Structure 14, more than likely served as the group shrine. This interpretation is based on traits such as height and form, room number and the presence of what is considered "dedicatory" burial (e.g. Coe 1959: 118). Burial 3, in conjunction with the exterior form, and a two-room superstructure, suggest that Str. 14 was probably the group shrine in its final form. These buildings served a religious rather than residential function. Coe (1965a) proposes a ritual function for certain buildings based on the presence of stone monuments before them; caches of exotic offerings, either beneath their stairs or beneath room floors; and finally the predilection of the Maya to inter someone of high rank below the temple just before starting its construction or during a new construction phase. Moreover, Rapoport (1969:24-25) and Welsh (1988) maintain that greater efforts in terms of labor and material are expended on sacred structures, compared to secular ones. The material used to construct Structure 14, appears of higher quality, when compared to Str. 13.

Shrines are typically high and square in shape, almost like miniature versions of temples. According to Harrison (1970: 129) this building plan typically exhibits between one to three doors. It is suggested that they are purposely built to house the burials and function as ceremonial temples (Haviland 1981:100) or ceremonial eastern structures (Becker 1971; Coggins 1975: 421 and 435). Temple structures have been documented throughout the lowlands, for example, Str. 38-sub at Dizbilchaltun (Andrews and Andrews 1980) and Strs. A-30e, 26d, and C-33d at Siebal (Tourtellot 1988). While Andrews and Andrews (1980) referred to Str. 38-sub a shrine, Tourtellot offered a different terminology: Class-C altar shrines.

Pollock (1965: 409) believes that ascertaining building function, especially ceremonial function, is difficult, he does acknowledge that factors such as size and location are important for determining function. Becker (1971:180) proposes that structures with a relatively great height, problematical deposits and a well-defined mortuary complex served a ritual purpose for a very limited segment of a certain social group. Haviland (1968), Pollock (1965), Becker (1971) and Welsh (1988) believe that these "east" structures served as temples and shrines concerned with ancestor veneration. For Welsh (1988) this also includes non-eastern shrines as well.

Although this building form (shrines) was first documented at Tikal within Becker's Plaza Plan 2 (1971), they exist within sites throughout the lowlands. According to Welsh (1988) shires become identified with the ancestors buried within them. The following shrine structures were used to house burial: Benque Viejo Str. B-1 (Thompson 1940); Holmul Str. F Group I (Merwin and Vaillant 1932: 15 and Fig. 1); Str. 38-sub at

Dzibilchaltun also housed burials (Andrews and Andrews 1980). Welsh (1988) notes, that shrines are constructed to commemorate a particular interment. For example, Str. 7F-30 for Burial 160; Str. 5G-8 for Burial 72; and Str. 7F-31 for Burial 159 (see Coggins 1975: 215, 329, 325).

There is also evidence for the placement of altars, benches or alternative construction over burials, symbolizing the commemoration of the interment (Welsh 1988: 188). He notes that an altar was erected over Burial 14; Str. 26d at Seibal (Tourtellot 1988). Benches were built over Burial B2, Str. B-1 at Benque Viejo (Thompson 1940: 27) as well as Burials 612-3 and 38-sub 5 at Dzibilchaltun (Andrews and Andrews 1980:81, 167). Construction over burials is prevalent at Tikal's Str. 7F-30 (Haviland 1981:94). Structures designated as household shrines are not always located on the eastern periphery of a plaza e.g., Mountain Cow Mounds M and N (Thompson 1931:256-257); Str. X at Holmul (Merwin and Valliant 1932: 50-53); Str. E-7 and Str. E-1 at Altun Ha (Pendergast 82); Str. A-30e and 4E-10 at Siebal (Class-C altar shrine) (Tourtellot 1988); Str. 6E-sub1, Burial 128 at Tikal (Haviland 1989).

Structure 13: Single Room Structures

Although Pollock (1965) and others typically equate one-room superstructures with religious temples, Hendon (1987) suggests that some benchless one-room superstructures at Sepulturas, Copan, Honduras had a variety of functions, but mostly served as storage bodegas. Thus, Str. 13, a benchless and nicheless single room superstructure may have been used for purposes. However, this building may have

served a multitude of purposes, when perishable furniture is taken into account. It was also brought to my attention that this was an elaborate building with a terrace and stairs. Why would such an elaborate edifice be used for storage? Chemical plaster samples form all three floors provided very low readings of phosphates and heavy metals, eliminating food preparation, and/or craft production (see Chapter 6). Although it has been noted that a place like Los Pisos Courtyard was probably kept very clean, erasing all activity traces.

Nevertheless, Andrews (1994) observed the importance of storage, particularly the precious items that were recovered from storage bodegas at the site of Aguateca, Guatemala. Harrison (1970:275) also suggested that simple one or two room structures near temple precincts served as storage rooms for ritual paraphernalia. Perhaps Str. 13 served as a storage bodega for unidentified items (ritual paraphernalia/water). However, Harrison (1970) concludes that simple buildings (Category 4) illustrate considerable variability.

Consequently Harrison's (1970) Categories 3 and 4 are not considered to have served a residential purpose. For Category 3, none of the evidence can suggests either general or specific function, while Category 4 best resembles "special oratories" or family shrines and "storehouses." The function of "storehouse" can be reserved for benchless and single entrance structures (Harrison 1970:302). Storehouses would resemble simple benchless structures, while oratories would possess a pyramidal base or the presence of interior "altars." Categories 3 and 4, are expected be located near the site center (Harrison 1970: 302).

Various ethnohistorical reports include a variety of storehouses. For example in highland Guatemala, Miles (1957: 768) discusses storehouses for merchant goods, while Sahagún (1954 Book 8:309) notes a storehouse for weapons as well as a storehouse for captive deities. He describes such storehouses, as small structures near the temples. Diaz (1963:228) describes a storehouse for account books in Tenochtitlan. It is probable that Str. 13 served as a storage bodega considering that many storage houses have been identified within central precincts.

"Palace" Complexes

Range "palace" structures are often part of a cluster or complex comprised of a variety of buildings. These complexes by association can fall under the "palace" complex category. Platform complexes such as the Los Pisos Courtyard, often located within site centers, are also identified as courtyard groups with long range structures placing them in the "palace-type" architectural category. Palaces can have a residential function, however they differ from other elite residences because they are characterized as monumental masonry architecture, often corbelled roof vaults, with sculptural decoration and are located within or close to the ceremonial core of a city (Christie 2003: 1). Christie (2003) also proposed that "palace-type" architecture served a multitude of purposes, public and civic, while elite residences were used exclusively as dwellings.

Courtyard complexes are the most ubiquitous elements in Maya sites (Pollock 1965). Adams, (1981) calls courtyard complexes "natural" or "emic" units within Maya centers. Similarly, paved courtyard spaces that are physically defined by surrounding

buildings are treated as a functional unit (Turner, Turner, and Adams 1991). These architectural configurations are present within site epicenters and in the rural periphery. Therefore, Adams (1991) suggests a distinction be made between elite and non-elite courtyard groups. This can be accomplished by architectural context, or lack of it, and by monumentality.

For Andrews (1975) *Basic Building Groupings* present in site centers have been identified as recurrent building complexes, which exhibit minor variations in their forms. He identified generalized groupings based on form and organization: *Temple Groups; Palace Groups; Quadrangle Groups (courtyard group), and Acropolis Groups* (see Andrews 1975). These archetypal forms have physical or visual requirements associated with a specific set of activities, hence a possible range of functions may be deduced based on such attributes (Andrews 1975). Although these building forms are found throughout the Maya area, their forms are not limited to a single function, e.g., a quadrangle group at one site will have a different function at another site (Andrews 1975). Therefore for Andrews form is the structural relationships among the individual buildings and does not equate to function.

Quadrangle groups are situated on large platforms that physically and visually isolate the complex. They are defined as:

> ...any grouping of buildings which form a more or less continuous enclosure around all four sides of an open courtyard or square. It is not necessary that the open space of the quadrangle be completely enclosed, nor is it necessary that each side consists of a single building, but in its

> simplest form it does consist of four long buildings, which are sometimes joined at the corners. In the case of Maya quadrangles, the individual buildings do not engage each other at the corner intersections, although the spaces left between the buildings do not serve as entryways. Entry into the open space of the courtyard is accomplished through one or more of the peripheral buildings by means of doorways or archways cut through these buildings at their center points (Andrews 1975:63).

Considering that the buildings that constitute quadrangle groups are oriented towards the inner space of the court, and only on occasion have doorways facing outward, Andrews (1975) believed that these groupings served as secluded religious places that were cut off from the world; where activity was regulated by a predetermined order. Ceremonial activity took place in the open courtyard space, where a large number of spectators could be present (Andrews 1975). The buildings open towards the courtyard constructing a private community that is physically and socially removed from the larger community (Andrews 1975). The Late/Terminal Classic rendering of the Los Pisos Courtyard fits well into some aspects of the Quadrangle groups proposed by Andrews (1975). However, in the Los Pisos Courtyard the Str. 9 "palace-type" building may have served as a dwelling in combination with other activities. Additionally, this building played a role in Plaza A, while simultaneously enclosing the courtyard to create more privacy. For example, Grube (1994) notes that Stela 18 was placed at the base of the stairway of Str. 9. This is an indication that Str. 9 also had an important role with

Plaza A. Hammond and Tourtellot (2003b) believe that Str. 9 may have been part of a "palace-temple" pair with Str. 2.

Ashmore (1981a) discusses seven classes of specialized group forms based at the site of Quirigúa: ballcourt (QP 1); patio group, which is equivalent to Tikal Plaza Plan 2 (QP 2); Quadrangle (QP 3); Triad group (QP 4); Structure-focused patio group (QP 5); four-stairway structure and platform (QP 6); and Single-pyramid group (QP 7). The Group QP 3 definition slightly departs form the quadrangle group proposed by Andrews (1975). Groups QP 3 are bounded only on at least three sides, with at least two or more closed corners (Ashmore 1981a: 238). Ashmore proposed that smaller versions of QP 3 and QP 5, served as the space reserved for administrators, priests and/or lesser nobility (1981a: 419). For Ashmore (1981a: 420) QP 3 Group 1B-1 at the heart of Quirigúa served politico-administrative, residential and economic functions while QP 3 groups on the periphery served as administrative centers where elites subordinate to the sovereign commanded. The quality of privacy afforded to some courtyard complexes was used to determine residential function (Ashmore 1981a). In this case it appears that Ashmore's functional definitions are more flexible and fall within the functional parameters proposed by others.

Proskouriakoff (1962; Proskouriakoff and Temple 1955) discusses courtyard groups and how they may have functioned within site centers at the site of Mayapan. Proskouriakoff categorized groups within site centers as Ceremonial/Residential. Accordingly, these groups did not function independently but were part of the greater site center, however, the purpose or function of these groups varied. Groups within site

centers are subject to a variety of interpretations, based on architectural types within groups, spatial location of buildings within groups and the location of the group itself, but in most cases these groups provided an "inside-outside" perspective (Proskouriakoff and Temple 1955).

Architectural groups located near the Main Group at Mayapan are designated as "ceremonial groups" (Proskouriakoff 1962). Ceremonial groups consist of: the colonnaded hall; a raised shrine; an oratory; dance platforms; service buildings; and occasionally a dwelling house, sometimes associated with a temple. The location of Mayapan groups and Proskouriakoff's functional interpretation of individual buildings fits well with the Los Pisos Courtyard. However, based on the architectural and archaeological evidence, a service building is absent at Los Pisos. Harrison (1970) documents the absence of kitchen/service buildings within palatial and ceremonial groups. Moreover, there are emphatic differences between Petén and Yucatan architecture therefore, it is not certain that such courtyard groups make useful correlates for the Los Pisos Courtyard.

At the site of Rio Azul Eaton (1987) investigated a courtyard group within the site's center to determine the character and function of the individual group architecture and how the group as a whole is related to surrounding buildings and complexes. The four buildings were built upon a platform and arranged to form a small, nearly rectangular courtyard. The group is located near an elite residential acropolis that served both civic and/or religious administrative functions. The presence of "sleeping" benches was a key component used to determine domiciliary function at Rio Azul.

Administrative function is expressed by the restricted access into the complex and the absence of household refuse deposits at one of the four structures. Additionally, Eaton (1987) argues for non-public function of the courtyard due to its restricted access. The groups had at least two buildings that served as residences for the ruling class as well as an oratory and offices. Therefore, the group as a collective may have "been that of leadership in civic and/or ecclesiastical administration and ceremonialism" (Eaton 1987:67).

The ceremonial/residential, public/private duality pervades much of the interpretation of lowland Maya palace-type architecture, particularly complexes within epicenters. Thus, ceremonial, residential and administrative concepts are part and parcel of such complexes and repeatedly proposed for many architectural complexes, including those beyond the central Maya lowlands, e.g., Proskouriakoff (1962), Proslouriakoff and Temple (1955), and Wallace (1977). The physical layout of quadrangle groups described by Andrews (1975) is similar to the Los Pisos Courtyard layout (not the famous Nunnery Quadrangle of course). Therefore, I am proposing that the Los Pisos Courtyard, first and foremost served as a ritual (commemoration complex), and performance space (see Chapter 9), with a possible temporary residential capacity for important members of La Milpa. Hammond and Tourtellot (2003a) note that the Western and Eastern Palaces at La Milpa served as permanent residences for the rulers. These palace complexes have the essential arrangement for a king's residence, i.e., an audience courtyard, a throne room and adjacent domestic areas capable of housing an entire royal family (Hammond and Tourtellot 2003a). Based on the excavations, and comparative interpretations of "palace"

complexes at other sites, it appears that the last rendition (Late/Terminal Classic period) of Los Pisos may have only served as a temporary residence, perhaps for the ruler and immediate family members.

It is clear that courtyard groups of varying sizes and architecture located within site epicenters functioned as residential, ritual and civic arenas for Maya rulers and elite classes. Residential function for complexes within epicenter centers was determined by the presence of pottery (mostly utilitarian) and lithic implements (choppers, scrapers, hammerstones, and ground stone manos and metates (Eaton 1987; Harrison 1970). Such assemblages are similar to the assemblages recovered from Late Classic Maya households. While some elements of "domestic" assemblages were observed at the Los Pisos Courtyard, their problematic context did not permit them to be used for making interpretations regarding the function and use of this space. However, the location of the Los Pisos Courtyard, within the ceremonial core, may be indicative of a temporary residence, rather than a permanent one. Such a residence may not have included all aspects of daily secular life that is present in a permanent residential setting. It may have been the case that the ruler and his immediate family members occupied this space during certain times, particularly when rituals where taking place in Plaza A.

Chapter 9: Transformations in Ritual Practice and the Built Environment During the Classic Period

The changes that occurred from the Early Classic and into the Late/Terminal Classic periods were some of the most profound and bespeak the exponential trajectory and growth of La Milpa. The setting and dedication of stale during the Early Classic are indicative of a centralized form of governance under a single leader—resonating the beginning of kingship at La Milpa. During the Early Classic, La Milpa continues on a modest scale and expands on the architectural site plan that was established during the Late Preclassic Period. It was probably during this time that La Milpa became one of the political contenders and advancing its position as an important center within the region. A monumental architectural program and a full-bore population surge occurred during the Late/Terminal Classic period. This rapid urbanization at La Milpa and presence of an emblem glyph transformed the site into a major urban center (Grube 1994). Such compound glyphs are indicative of autonomic seats of power or royal titles.

The Los Pisos Courtyard was at the center of this prodigious growth and was central to transformations and shifts in sociopolitical organization. The sociopolitical strategies of La Milpa's first leaders were superseded by "royal strategies," as proposed by Houston *et al.* (2003). These transformations correspond to the incremental growth of the architectural program of La Milpa, specifically the Los Pisos Courtyard. It appears that the courtyard underwent at least three major transformations. Chapter 7 demonstrated the inception of the Los Pisos Courtyard as well as its growth, function and ritual activity. This chapter aims to support and align final interpretations and

conclusions concerning Los Pisos Courtyard and the site of La Milpa during the Classic Period. It is believed that "material remains signal identities, social practices, power relationships, and cooperative alliances that once existed" (McAnany 2010:20). Therefore, the built environment and material correlates representative ritual practice remain at the fore of this research.

Early Classic Period (A.D. 250-600)

The hiatus and population decline for the Three Rivers Region was not as intensive and extensive as once hypothesized. Sullivan (2002) asserts that the lack of Early Classic ceramics in this region signifies, not a hiatus and/or population decline, but rather the continued use of Late Preclassic ceramics types during Early Classic times (Sullivan and Valdez 2004; Kosakowsky and Sagebiel 1999). However, certain utilitarian wares have notable changes that can make it possible to differentiate Late Preclassic from Early Classic ceramics in most areas (Takeshi Inomata, personal communication 2013). The monumental programs of the Late/Terminal Classic period eclipsed the modest Early Classic public architectural construction programs, further contributing to the hiatus theory (Fash and Stuart 1991:150; Wiley and Mathews 1985:1). Growth and major construction is only present at four of the 14 large centers within the Three Rivers Region (Houk 2003): Rio Azul (Adams 1999); La Honradez (Von Euw and Graham 1984); Blue Creek (Guderjan 2011); and of course La Milpa. Pyburn *et al.* (1998) and Hageman (1999) suggests that such an asymmetrical form of settlement

organization may be attributed to a new settlement pattern in which people were moving away from large centers and into the hinterlands.

This new settlement pattern contradicts the traditional concentric model, with elite populations moving away from centers in the Three Rivers Region (Sullivan 2002; Sullivan and Sagebiel 2003). Accordingly, Sullivan and Sagebiel (2003) argue that such a settlement pattern suggests that priority was placed on ideological symbols of the Petén core sites rather than on monumental architectural programs in centers. The political field for the Three Rivers Region during the Early Classic is characterized as a region comprising of a few dominant centers that consolidated their powers in order to strengthen ties with core sites in the Petén, i.e., Tikal and Uaxactun (Sullivan 2002). The growth within the site core and periphery clearly indicate that the site of La Milpa was jostling to become one of the most prominent centers in the region (Sagebiel 2005).

At La Milpa substantial growth and activity has been observed, particularly within Plaza A. At least seven stelae, based on stylistic evidence were dedicated during the Early Classic (Grube 1994; Hammond and Tourtellot 2003b). The dedication of stelae bearing long count dates and hieroglyphic texts is one of the first indicators of institutionalized kingship (McAnany 2001). The most compelling exemplar comes from Tikal Stela 29, which depicts Scroll-Ahau-Jaguar in ritual regalia and the oldest known long-count date of A.D. 292 (Jones and Satterthwaite 1982). McAnany (2001) notes, that Stela 29 marks the transition from the Late Preclassic to the Early Classic period and the institution of kingship.

A shift from a local or independent rulership to one with attachments to the Tikal city-state is proposed for this time period, considering the high index of Petén style pottery from throughout La Milpa (Hammond 1997; Sagebiel 2005: 731). Adams *et al.* (2004:335) regard the political status of La Milpa as part of the Tikal city-state during the Early Classic period. "However, its suite of carved monuments may imply that it was more a client state than a subordinate unit in the larger Tikal state" (Adams *et al.* 2004:335). Territories consisting of city-states, e.g. La Milpa, Xultun, La Honradez, and Río Azul-Kinal, within the Three Rivers Region may have also influenced La Milpa (Garrison and Dunning 2009).

One elite tomb burial dates to the Early Classic at La Milpa, a second Early Classic tomb has not been officially confirmed (Guderjan 1991a: Hammond *et al.* 1996). There is evidence for caching activity at the base of Structure 5 as well (Hammond and Tourtellot 1999; Hammond *et al.* 1996: 88-89; Tourtellot *et al.* 1994:121). The erection of stelae, along with the tomb of what may be the first king of La Milpa, illustrates La Milpa's prominence and stature as it comes to the fore during the Early Classic period (Hammond 1997; Sagebiel 2005). Sagebiel also notes that the initial construction program of southern courtyards (Plaza B, C, and Courtyard D) further expanded the Late Preclassic central core. However, based on the work conducted by LMCP, it is clear that the southern courtyards were probably already in place during the Late Preclassic and expanded during the Early Classic period (Zaro and Houk 2012).

Ceramic data indicate that large residential groups 266, 306, 325 and 351 located near the site center were built constructed during the Early Classic (Sagebiel 2005). This

phenomenon is present throughout the PfB where elite residences were juxtaposed between ceremonial precincts and the hinterlands. Such residential groups, particularly large and elaborate ones, are considered to be "palaces" and their attached shrines "temples" (see Willey 1981: 392). Most eastern residential shrines within large residential groups are constructed during the Early Classic. Renfrew (1994) views such a collective practice as the materialization of a shared ideology.

At the Los Pisos Courtyard, this period is marked by the placing of a table altar or stela fragment at the northern end of the courtyard as a way to commemorate a new and significant construction program (Figure 5.60). Most notable was its placement within the sascab of the Early Classic subfloor fill. It was during the Early Classic that the entire courtyard was paved from the southern to the northern end and this monument fragment may have served to commemorate this new construction program. The tradition of displacing and/or destroying carved and plain stelae and altars at Tikal is present by the Late Preclassic period (A.D. 150-250) and increased in importance into the Classic period (Moholy-Nagy with Coe 2008).

Prior to the Early Classic only the southern end of the courtyard seems to have been occupied and constructed into a formal space. Neither bedrock nor earlier paving episodes were reached in the northern end of the courtyard. Large boulder construction fill in Suboperations N and X (Figures 5.102 and 5.63) indicate that the northern end of the courtyard was leveled at the end of the Late Preclassic or beginning of the Early Classic period. Such a massive construction effort may be indicative of a much deeper bedrock surface and absent Late Preclassic construction in the northern region of the

courtyard. The courtyard may have doubled in size; this would have been one of the biggest transformations that occurred within this space.

In addition to the prodigious paving episode, the construction of an Early Classic platform, Str.13 Sub-1, located within the core of Structure 13, and possibly a platform like structure within Str. 15 are the only structural evidence for the earliest rendering of the present courtyard layout (Figure 5.36). The western end of Str.13 Sub-1 Platform appears to have been penetrated and patched, perhaps representing some sort of caching activity.

> Intrusive caches played a role in the commemoration of katun and tun anniversaries, of special offerings to celebrate festivals in the 260-day ceremonial cycle, or burned offerings and sacrificial caches to bend the gods in agricultural matters, and on other occasions requiring offerings in the form of pots and varied contents, all set beneath the floor on which their hierarchal donor walked (Coe 1959:119).

The function of this platform is not clear due to limited excavations. Only a 2 x 2 m surface area of the platform was exposed and it was not clear if a masonry construction was present but subsequently destroyed during the construction of the final building. The platform was covered with large limestone and chert boulders and evidence of construction was not visible. Excavations revealed that the platform was approximately between 2.10 and 2.20 m in height, and approximately 4 m in width, however its length could not be ascertained. Substructure 13 was approximately 8.75 m in length. Perhaps

the length of Str. 13 Sub-1 roughly corresponds to this length. This platform may have been 2.20 m high, 4 m wide and 7 m long. Twenty-eight square meters of surface space is large enough for the construction of a masonry building.

Conversely, this may have been an open platform that served as a performance stage (see discussion Maya Ritual Performance and platforms below). It is clear that during the Early Classic period Plaza A was a prominent ritual precinct and that Los Pisos Courtyard was part of this ritual landscape. The courtyard may have continued to serve as a ritual performance stage that remained open and visible to audiences in the Plaza A region, with a more intimate setting within the courtyard. While excavations have revealed that the northern end of the courtyard was probably open and free of building construction, excavations concerning the complete layout of the courtyard, particularly the eastern side of the courtyard (Str. 9) was not conducted. Therefore it is not clear if such activities would have been visible form Plaza A. However, during this time the entire courtyard was paved and the east-west orientation and placement of this platform would have made viewing from within the courtyard itself more conducive, rather than from the Plaza A region (Figure 5.109).

A second Early Classic platform like structure was exposed in Str. 15 (Figure 5.96). A deposit containing fine polychrome ceramics (Figures 6.7 and 6.8) with evidence of painted scenes typically associated with elite burials was located in the southwest corner of Structure 15 and associated with the earlier platform construction. It is not known if the reconstructible vessel lid and other fragments were associated with a burial however their size and preservation may be indicative of a dedicatory cache used

to cite an event (see Coe 1959:118; Smith 1950:93). Coe (1959:119) believed that dedicatory caches served to sanctify structures or to dedicate them to particular deities, and can also be related to "tun count" ceremonies. The lack of a burial, and of the vessel itself (only the lid and a variety of large sherds were recovered), is suggestive that it may have been part of the construction fill for an earlier construction phase of Str. 15. Excavations within this subop were constrained by time, therefore proper interpretations concerning this deposit are not possible at this time.

A significant trench into Str. 15 only produced large boulder size construction fill typical of Late Classic construction fill, and Sagebiel (2005) notes the presence of two Late Classic I floors that run beneath this structure, indicating that the earlier building (Str. 15 Sub-1) was much smaller. Structure 14 did not have an earlier structure within its core, suggesting that the north end of the courtyard was open. Structure 9 was not excavated for a variety of reasons. Although its latest version dates to the Late Classic/Terminal Classic period it most likely has an earlier version(s) within its core (Figure 5.110).

The architectural program at the Los Pisos Courtyard during the Early Classic was less significant compared to Late/Terminal Classic times. Nonetheless, it was pretty considerable, considering that the platform may have doubled in size. Sagebiel (2005) also notes that a midden (Op A-03) within the Los Pisos Courtyard contains ceramic data indicative of a significant occupation during the Early Classic period. The courtyard may have continued to be relatively open, but the present day configuration of restricted space was coalescing and the use of this place was forever altered. The closing off of once

open space is noted throughout the lowlands during the Classic period, e.g., Complex A-V at the site of Uaxactun. Proskouriakoff (1963:114-129) documents the Late Preclassic open and unrestricted plaza and three cardinally oriented shrines and how the Classic period construction of the same group evolved into a very constricted and segregated architectonic space with narrow corridors. The paving of the entire courtyard suggests that it may have transformed from a stage like setting, to a large platform where a variety of activities, including ritual, were taking place. The enlargement of the courtyard instantly allowed for a larger number of people, probably the highest elite, to engage in and participate in a more intimate and exclusive locale.

Late Classic Period (A.D. 600-700)

In the Maya lowlands, Willey (1974) describes the hiatus, "a rehearsal for the collapse" (Adams 1999: 171), between the end of the Early Classic and early Late Classic periods 534-593 A.D. A significant drop in the dedication of monuments throughout the Petén and minimal construction activity has been observed. It is believed that this hiatus corresponds with the destruction of Rio Azul ca. A.D. 530 (Adams 1999: 144-145; Sagebiel 2005). Ceramic production at Rio Azul and architectural construction at Uaxactun virtually ceases, creating a period of relative stagnation in the region (Culbert 1991:136; Adams 1987: 2). On a grander scale it is also the period during which the overthrow of Tikal by Caracol in A.D. 556 and 562 occurs (Culbert 1991: 136; Martin and Grube 2000:39). Martin and Grube (2000) note that at least 130 years passed without the dedication of dated monuments at Tikal. For Sagebiel (2005) such a lapse indicates

that the political arm of Tikal withdrew from the region. Willey (1974:419) notes transformations of traditions corresponding to the hiatus, e.g., the transition from Tzakol to Tepeu, a shift from heavy block masonry to a veneer-like treatment, and Maya sculpture illustrating the occurrence of altering events.

The Three Rivers Region also followed suit and population was down compared to the Early Classic period (Adams 1999: Chart 1-4, 200-203; Adams *et al.* 2004: 328-332; Hammond and Tourtellot 2004: 296-299; Sullivan and Sagebiel 2003: 31-32). Grube (1994) attributes this population decline and architectural cessation to the geopolitics between Tikal and Calakmul. It was during this time that the alliance between the Three Rivers Region and the Petén appears to fracture (Sagebiel 2005; Sullivan 2002; Sullivan and Sagebiel 2003). The site of Dos Hombres experienced a similar decline in construction during this time as well (Houk 1996). Evidence of termination rituals prior to the regional hiatus is present at the sites of Gran Cacao (see Lohse *et al.* 2005: 59, 74-75) and Blue Creek (see Guderjan 2004: 241-242).

Monumental construction and stelae dedication ceased at the site of La Milpa between A.D. 500 and 700 (Hammond *et al.* 1996: 90; Tourtellot *et al.* 1994: 123). Within Los Pisos Courtyard possible evidence of a termination ritual was noted. Sagebiel (2005:631,738) observed the presence of an ashy lens (B-64.14) located between a possible LC I floor and LC II stairs at the base of Str. 15. There is also evidence of discontinuity in the construction of civic architecture but also the continued use of spaces. Proper repairs and maintenance were lacking and that the site was in disarray. For

example, unit B91.04 in Plaza B behind Str. 21 has an occupation layer (not construction fill) over a LC I floor that was later paved over by a LC II floor (Sagebiel 2005:633, 738).

Most of the ceramics at La Milpa were recovered from middens, Los Pisos Courtyard (Group 88 Acropolis), South Acropolis, and Group 135/Str. 69 and possibly Reservoir B, and the hinterlands, rather than from construction fill. This supports the idea that continued habitation ensued amid difficult times, but with little construction effort (Sagebiel 2005: 739). The construction of public architecture within the southern regions of the site core is not present during this period. Sullivan and Sagebiel (2003) note the lack of Tepeu 1 ceramics in the construction fill of large buildings, e.g., Group 61, Courtyard D, Group 293 near Plaza B and Str. 36 and Str. 39 in the South Acropolis.

The central precinct continued to grow, evidence of extensions or repaving of Plaza A, Los Pisos Courtyard (Group 88 Acropolis), Plaza B, Plaza C and Courtyard 136 in Group 135/Str. 69 are noted by Sagebiel (2005: 739). Additional civic work noted by LaMAP is the sacbe connecting Plaza A to Plaza B and C, and Courtyard D, to the southern elite residences. It was also during this time that the construction of water control and agricultural features was evident throughout the region, including the Southwest Bajo suggesting a form of centralized control (Kunen 2001, Sagebiel 2005:739).

Late/Terminal Classic period (A.D. 700-900)

> …we must ask how the ruling elites organize and structure their lives by exploiting wealth in the service of a legitimacy that sustains the order of a society, and ultimately a civilization, in which they are the supreme beneficiaries. (Baines and Yoffee 2000: 16)

During the second half of the Late Classic (A.D. 650/700-800) the Three River Region experienced a large population surge (Adams 1999: Charts 1-4, 200-2003; Adams *et al.* 2004; Hammond and Tourtellot 2004). Within the Three Rivers Region major Classic period centers rose or resurged into prominence, e.g., Rio Azul (Adams 1990, 1995; 1999), Kinal (Adams 1990), La Honradez (Adams 1984), La Milpa (Tourtellot and Rose 1993; Hammond and Bobo 1994), Dos Hombres (Houk 1996), Blue Creek (Guderjan 2011; Guderjan and Driver 1995), Ma' ax Na (Barnhart and Ross 1997; King and Shaw 2004), Chan Chich (Guderjan 1991b; Houk and Robichaux 1996) and Gran Cacao (Lohse 1995). It was also during this time that evidence for regional independence becomes visible. The appearance of locally organized pottery production indicates the high degree of political autonomy in the region (Sullivan 2002:215).

It was sometime after A.D. 650 that La Milpa's population grew to unprecedented numbers and construction at all levels created a renaissance at La Milpa. However, these new spatial settings further divided La Milpa into more or less segregated arenas (see Grove 1999; Joyce 2000b: 72). New construction projects commissioned by elites imposed order on three-dimensional space, transforming and stratifying it and the people who accessed this newly formed order (Joyce 2000b: 72). Sagebiel (2005:747) argues for the introduction of a "new" elite (whether indigenous or from elsewhere).

It is believed that La Milpa was a dominant site in the region and may have functioned as a regional capital with administrative links to Rio Azul (Adams 1999; Adams *et al.* 2004). The dedication of Stelae 11 and 12 (A.D. 672) depicting a king along with the emblem glyph for La Milpa may indicate that La Milpa was an independent power (Adams *et al.* 2004: 335; Grube 1994:221). Adams makes the argument, based on the text on Stela 2, for the subordinate status or alliance between Rio Azul and La Milpa (1999: 103-105; Adams *et al.* 2004: 335). La Milpa's political clout may have led to the reestablishment of the site of Dos Hombres in part to distribute elites throughout the region as a way to capture more agricultural resources (Houk 2003: 60-61).

Epigraphic evidence from the Late Classic period supports the idea that large construction projects or what Ashmore (1989:279) termed "volumetrically imposing undertakings" imbued the commissioning ruler with political clout (Abrams 1994). For example, Ashmore (1989) notes the name of a ruler at Palenque, "He of Five Pyramids", is a reference to the commissioning of architectural projects. At the site of Quirigua Looper (2003:200) observes interrelated domains of power embodied in the legacy of texts, monuments and architecture left by K'ak' Tiliw. For Looper (2003:200) monumental building constituted a restricted tradition and provided a domain of power and authority crucial to kingship.

Current excavations (Martinez 2008, 2009, 2010) have established that the massive construction program that took place at La Milpa was also present at the Los Pisos Courtyard. It is without question that all the structures in the courtyard were

constructed and/or expanded during this construction boom. LaMAP notes that the majority of ceramic sherds recovered in the upper most levels date to the Late Classic II period (Sagebiel 2005: 650). At least one paving episode dates to this time period (Hammond *et al*. 1996: 89; Sagebiel 2005).

As previously mentioned the division between Late and Terminal Classic period ceramics could not be determined, however excavations reveled a collection of paving episodes (Figures 5.2 and 5.21). These paving episodes typically consist of two or more floors in close association, with construction fill sandwiched in between. These paving episodes may be representative of large temporal periods. In the Los Pisos Courtyard, excavations revealed five plaster floors dating to the Late/Terminal Classic period. Most of the floors exhibit evidence of resurfacing. Three of these floors may date to the Late Classic construction efforts, while it appears that two are most likely part of the Terminal Classic construction efforts. Nevertheless, ceramic data from these excavations places all these floors with the Late/Terminal Classic (A.D. 750-900) periods.

The three paving episodes found in Superstructure 13 may indicate that it was remodeled at least three times. However, it was a single room structure in its current form. The looter's trench in Str. 14 provided ample information concerning the construction program of the building. The building appears to have been constructed as one massive construction effort, perhaps during the Late Classic period and undergone major changes and transformations during the Late/Terminal Classic period. Its initial form was a terraced platform with two visible paving episodes. A large piece of red painted plaster floor found in the looters trench indicate that the platform was painted red

A two-room superstructure was subsequently constructed on this platform. The two-room structure appears to have been infilled perhaps in last ditch efforts to construct on top of the building or to terminate the building.

Maya Ritual Performance

The Los Pisos Courtyard may have been a dynamic place where multiple activities where taking place, e.g., residential and/or administrative. However, based on the visible construction episodes in Str. 14, the courtyard may have also functioned as an exclusive ritual arena during the Late/Terminal Classic period. Structure 14 Sub 1, was a terraced platform, which may have been used for ritual performances (rites and ceremonies) (Figures 5.68 and 5.69). Proskouriakoff (1962) documents a similar building pattern for Str. Q-77 at Mayapan. Such platforms occur at Tikal and other Maya sites during the Late Classic period (Pollock 1965:421). Fash *et al. (*1992), report a low dance platform located between the East and West Courts and the *popal nah* (council house) at Copan.

Schele and Mathews (1998:23) propose that: "Maya architects designed their buildings to encompass motion and performance so that they operated like stage sets in which drama and ritual unfolded." Artistic and textual records of theatrical displays of religious ceremonies and courtly activities are documented on numerous stele, panels, lintels, mural paintings and ceramic paintings (Kerr 1989-1997; Miller 1986; Schele and Miller 1986; Tate 1992). Many of the stone monuments depict the ruler as the central figure engaging in public performances (Grube 1992: 216). Houston and Taube

(2000:276) acknowledge a text from the site of Tikal, in which the ruler is a singer. The glyph *to dance* in association with rulers depicted in a dance pose was deciphered by Grube (1992).

Inomata (2001a: 341) suggests that, when the concept of rulership arose during Preclassic times, the term *ajaw* was used to characterize the leader as the interlocutor in a theatrical setting with the expectation of being understood. At the site of Quirigua Looper (2003:200) observed the ritual performance of K'ak' Tiliw that is detailed in text and image and illustrates "…the king's position as a mediator between the everyday world and the spirit world inhabited by the gods and ancestors." These texts and images illustrate that through ritual performance the king became the proprietor of the gods and ancestors as well as their caretaker and sustainer (McAnany 2010:176).

Stuart (1995) proposes that the term for ruler, *ajaw*, means "he who shouts." Houston and Stuart (2001:59) argue that the original purpose of the term may have expressed the leader's ability to communicate with supernatural beings. Special links with the dead (ancestors) and gods (including divine ancestors), cemented a divine authentication. Such an authentication diminished challenges to the established hierarchy and promoted the ability of rulers to withstand the *longue durée* (McAnany 2010:159). These cosmological connections may have provided rulers with *ip*, a Classic Maya term which can mean vital power or essence (Houston and Stuart 2001; McAnany 2001:127).

Elsewhere, Houston and Stuart (1996) asserts that hieroglyphic text may have been intended to be read aloud. The display of the ruler was thematically ingrained in the iconography and epigraphy. For example, the glyph *il* meaning "to see" or "to witness"

was deciphered by Stuart (1987). He points out the importance of witnessing events (Stuart 1987). It was later suggested, that the reading of this glyph conveyed the witnessing of rituals (Houston 1993: 139; Houston and Taube 2000: 286-287; Stuart and Houston 1994). Inomata (2001a: 355) notes that this glyph, *il*, is primarily used in the context of a foreign dignitary witnessing ceremonial acts performed by a hosting ruler. It is suggested that theatrical display inherently created competitive interactions among court members vying for positions and power. Moreover, their positions were at times placed at greater risk by testing their competence to speak (Barrett 1991:7; Inomata 2001a: 344).

Inomata (2001a) argues that, while many "palaces" in the Maya Lowlands were residences for the ruling elite, these spaces were also theatrical spaces, where courtly performances took place. Inomata (2006b) observed a possible dance platform, Structure M-33, near the Palace Group at the site of Aguateca. The primary living quarters of the royal family at Aguateca, M7-22 and M7-32, have outdoor benches attached in perfect view of the activities that took place on Str. M-33 and the surrounding area (Inomata 2001). Inomata (2006b) suggests that the occupants of Structures M7-22 and M7-32 (the royal family) sat on these outdoor benches to watch private theatrical performances being conducted on Str. M-33.

Many vase paintings depict very circumscribed courtly interaction (Kerr 1989-1997; Reents-Budet 1994; 2001) that may have taken place in multichambered structures within small private courtyards. The scenes illustrate different forms of architectural elements such as pillars, room divisions, and curtains. Inomata (2001) suggests that

many of these scenes have a perspective view from the outside suggesting that they were meant to be witnessed, but by only a certain segment of the population.

The Royal Palace at the site of Aguateca has two buildings that express different degrees of visibility. Inomata (2001a) notes that Structure M7-22 provided visibility, while Structure M7-32 only provided visibility to those invited into the palace. The Central Acropolis of Tikal, the Palace of Palenque and Caana of Caracol are considered the possible living quarters of the ruler with relatively low visibility due to the surrounding buildings and verticality (Harrison 1970, 1999; Miller 1998; Chase and Chase 2001). Inomata (2001a: 356) suggests various degrees of exclusivity for courtly settings exist from site to site, and smaller spaces with limited access defined who could participate in theatrical acts and how participants interacted with each other. For example, Inomata (2001a: 356) notes the visual accessibility into the possible throne room (M7-22) to those not physically present in the Palace Group at Aguateca. While Harrison (1999) notes the complex arrangement of Tikal's royal residential compound, the Central Acropolis, was visually and physically accessible only to the top members of Tikal.

It is clear that throughout the Maya lowlands public architecture "served to create spatial arenas with restricted access, a form of exclusivity" (Joyce 2000b: 71). During the Late/Terminal Classic period, the Los Pisos Courtyard was only accessed by the most important and powerful elites. Such ritual interactions must have fostered and encouraged exclusivity at the height of Classic Maya society. In essence, practices taking place within the Los Pisos Courtyard were building and enforcing the structure that

created constant and visible asymmetrical relationship between the ruler and the ruled during the Late Classic period. Exclusivity created a stratified three-dimensional space, making clear distinctions between centers and peripheries as well (Joyce 2000b: 72). Therefore, locales such as the Los Pisos Courtyard where distinguished to all members of society.

Aoyama (2011:54) argues that Classic elite men and women formed their identity through exclusionary tactics by shrouding and guarding ideological, religious and esoteric production of knowledge. In ancient China, Chang (1983:90) describes this as the development of the "knowledge class." McAnany (2001:140) posits a deep correlation between Chang's concept and Maya societies' sacred knowledge, access to the wisdom of the ancestors and of supernaturals, and perhaps even to a prestige language (Houston *et al.* 2000).

An interesting way of looking at the number of possible people that could be present during performance rituals at Los Pisos courtyard was afforded to us during the 2009 season. In the summer of 2009, the H1N1 flu scare restricted travel outside districts throughout Belize, increasing local tourism at La Milpa. Approximately 80 elementary school children, teachers and parents fit comfortably in half the plaza space, a number that I never imagined or predicted for this space. I can envision 100 adults fitting within this space comfortably, perhaps participating and viewing ritual performances.

The concept of theatrical space presented by Inomata (2006:816, Table 1), illustrates examples from throughout the lowlands and explores plaza space and the possible number of occupants at one time. While there are multiple settings in which

theatrical performances could occur, for example small residential complexes and caves, during the Late/Terminal Classic period the Los Pisos Complex would have been a more circumscribed theatrical stage and the performance and spectacle was adapted for court members (e.g. Sanchez 1997). The plazas and capacity estimates presented by Inomata (2006a) are for some of the largest plazas in the lowlands and for large community public rituals; however the estimated capacity can be applied to small segregated courtyard ritual space. The total area of the Los Pisos Courtyard is relatively small, 525 m^2. Inomata (2006a) provides three estimates: 0.46 m^2/person; 1 m^2/person; and 3.6 m^2/person. Such estimates presume that the highest number of occupants that could fit into the courtyard is 1141.3, followed by 525, and 145.8, respectively. Based on the number of people witnessed in the courtyard in 2009, I tend to agree more with the 3.6 m2/person and that 145.8 people could easily fit into this space. The other two counts seem to high, but one should take into account the western perception of individual space. The last calculation seems a bit to high and that many people within this space would have been a tight fit. The 525 is probable and if the population for La Milpa during the Late/Terminal Classic period 50,000 are correct, only a very small and circumscribed audience, 1% of La Milpa's population, was privy to the activities taking place within this space.

Moreover, it is believed that certain architectural elements associated with these closed complexes continued to be important architectonic elements for more public community theatrical display. For example, the large stairway connecting the Palace of Palenque to large public plazas may have served in this capacity (Inomata 2006a). The

Bonampak murals and ceramic paintings portray the use of large, wide stairways or terraces as theatrical stages (Miller 1986; Reents-Buget 2001). The versatility between spectacles and concealment at large centers provided the rulers with choice (Inomata 2001a: 356). Inomata (2001a: 358) believes that the spectacles conducted at palaces in the Maya lowlands permitted non-elites to interact with the ruler, and were a vehicle for displaying political propaganda. It has been conjectured, that the eastern façade of Str. 9 may have served such a purpose. There may have been large, wide stairways or terraces that where used for theatrical performances, while people watched from Plaza A. This is an idea that still needs to be verified through excavations.

Nevertheless, Inomata (2001a) notes that in some societies it is forbidden for royals to be seen or interact with non-elite. For example, the Forbidden City of China and in pre-modern Japan where only high status courtiers had visual and physical access to the emperor. Flannery (1998) also observed that continuous walls surrounding the royal compounds of Chan Chan, Peru separated the ruler from the rest of the population. For Inomata, (2001a: 358) "Any ruler needs to strike a balance between his or her visibility to and seclusion from the rest of society."

The Los Pisos courtyard may have provided seclusion within Plaza A, a location where spectacle was widespread, thus serving as a private component of public ritual. The built environment physically and symbolically shaped forms of interaction and display. Such palace layouts provide "important clues concerning patterns of political and ceremonial interaction and the nature of rulership" (Inomata 2001a: 341). The Los Pisos Courtyard probably functioned as a restricted theatrical space for the royal court

and retained a certain level of inclusiveness that was also used to reinforce the message of divinely mandated power (see Inomata 2006a). The La Milpa elite fostered the development of high culture, the intersection between order, legitimacy and wealth, particularly within architectural settings, through patronage and elaborate settings for their actions and interactions (e.g. Joyce 2000b: 64). The most fragile order (cosmic order) and legitimacy was created, fostered and maintained within these settings. Moreover, the Late Preclassic renderings of the Los Pisos Courtyard, the actors and ritual action and the identities produced in such an architectural setting, served to mark the landscape with sites of memory. These sites of memory were used to legitimize the authority of Late/Terminal Classic elites.

Commemoration Complex

The conversion of Structure 14 from a ritual platform to group shrine was significant in terms of how this space was used (Figures 5.71 and 5.73). Most residential architectural configurations include a group shrine. For example, Structure M7-31 at Aguateca. Notably, throughout the La Milpa realm, household shrines were either refurbished or built during the Late Classic period (Sagebiel 2005:678), signaling the importance of ancestor veneration for all of La Milpa's inhabitants. McAnany and Plank (2001) discuss the resemblance between Maya palaces and extended family residential compounds, particularly their layouts. For example, long rectangular buildings forming a private open space with a shrine structure on the eastern or northern side. In line with Ashmore (1981a), Kurjack (1974), McAnany and Plank (2001), Webster (1980) and

Sanders (1981) it is proposed that some palace complexes and the activities performed within them can be considered as parallels to house compounds—house compounds with increased ceremonial-political functions. It can be argued based on the presence of a shrine that, the Los Pisos Courtyard was a dynamic place for the commemoration of the ancestors, which also served a domestic capacity. I argue, temporary residence, because of its location in the ritual precinct. Additionally, the southern acropolis and perhaps southern plaza areas are believed to have served as permanent residences.

For Classic lowland Maya society, McAnany (1995:50) suggests that the residence is the *curational envelope* for ancestors for both elite and commoners. She also proposes that both the interment and ritual commemorations were conflated within this physical space. McAnany (1995:51-52) observed that the funerary architecture displays long sequences of reuse and expansion, a phenomenon that Coe (1956:388) attributes only to Maya society. This behavior is interconnected to the constant interaction of the lowland Maya with their ancestors and the places where ancestors were interred (McAnany 1995). A pattern of burial interment and structure remodeling correspond to the cycle of death and rebirth (McAnany 1995: 51). It reflects an ideology that engenders an architectural tradition that bends and yields with the inclusion of new ancestors.

The interment of important individuals and rituals associated with them was of supreme importance at the Los Pisos Courtyard. Perhaps one of the last ritual interments conducted at the Los Pisos Courtyard occurred at Structure 14 (Figures 5.74 and 5.75). A burial was placed under the staircase on the southern façade of the building. The burial pit construction was constructed into the original platform, through two floors, but

outside the two-room superstructure. This burial probably marked the transformation of this building from performance platform to group shrine. Human bone from this burial yielded an uncalibrated radiocarbon age of 1300±43 B.P., with a 2σ calibrated age range of A.D. 647-856. Based on its location within the construction sequence of Str. 14, I would place it within the Late/Terminal Classic period (A.D. 700-900) period after the construction boom took place. Particularly, since Tepeu 1 Period ceramics (600-700) from the Three Rivers Region, including La Milpa, have not been recovered in association with construction episodes (Kosakowsky and Sagebiel 1999; Sullivan and Sagebiel 2003).

Burial 3, was the third burial encountered within Los Pisos and the first found within a building. The individual from Str. 14 was probably a member of the elite based on evidence that he/she participated in the "palace diet" (see stable isotope data presented in Chapter 6). It can be assumed that the ruling elite at La Milpa continued to enjoy the dietary privilege afforded to them during the Late Classic and possibly into the Terminal Classic periods—a time when the activities in civic/ritual precincts began to decline throughout the Maya lowlands. Maya society placed a great importance on the built environment, especially the interments of high-ranking Maya. This, in turn, created a sanctified built environment that elites could use to profess their power and authority. These buildings, shrines, served as both mausoleum and temple—"sleeping places" for the ancestral spirits who were called upon during times of need (Freidel *et al.* 1993: 182, 188-191; McAnany 1995:26-28).

Classic Maya ancestor veneration became a fundamental platform from which political power was employed and exercised (Ashmore 1991; Freidel and Schele 1989; Marcus 1992; McAnany 1995; Schele and Miller 1986). As early as the Late Preclassic and through the Late Classic periods Schele and Freidel (1990) suggest that ancestors served to anchor the rule of their descendants. The seminal work of Schele and Miller (1986) illustrates iconographic and glyphic texts of ancestors being conjured up or summoned by rulers with incense and blood-spattered burned paper. On the "Dazzler" vase Copan's dynastic founder, K 'inich Yax K'uk' Mo' watches over his lineage and the practices of his descendants (Reents-Budet *et al.* 2003). These ancestors were propitiated through heavily charged rituals; or what Marcus (1992: 263) calls "performance reaffirmation rituals." Such rituals were conducted in and around the funerary architecture or "house" for the ancestors (Freidel *et al.* 1993: 182, 188-191; McAnany 1995:49-55).

The continued ritual use of the Los Pisos Courtyard reveals intent to create or sustain a collective memory through an event (mortuary ritual) and a built environment (material space occupied by the group). This began during the Late Preclassic with Burial 1. The personage in Burial 1 may have served as an anchoring ancestor to elevate the status and prestige of the royal house (Connerton 1989:2, 36, 37). Burials 2 and 3 perpetuated such memories through the Late/Terminal Classic periods. Such memories become the thoughts and interests of a community through daily interactions within certain spatial frameworks and the material milieu that embodies it (Connerton 1989:37). For example, Fash (2002:14) notes that monumental efforts used to enshrine the

memories of rulers expressed "…an abiding concern with persuading the masses of the immensity of the power of—and perpetuating the perception of permanence— of political orders based on royal genealogy." It was through such commemoration rituals that the Los Pisos Courtyard became a fixed symbol of continuity for the entire community, both elite and non-elite.

The word *muknal* acknowledges a burial place or shrine after *muhk-ai* ("is buried") and the toponymic reference *nal* ("place of") and may be an emic referential term for addressing areas such as the Los Pisos Courtyard (Stuart 1998). Thus the Los Pisos Complex became a commemoration complex or *muknal* (burial shrine) where La Milpa's royal ancestors watched over the lineage and the actions of the descendants. The courtyard was also a place from which ancestors could be called upon during times of need and legitimation. The death date and muknal interment dates from several Maya sites indicate that time elapsed between the two, from 260 days to 24 years (McAnany 1998:289). Gillespie (2001:90) has interpreted this disparity in time as "biological" and "social" death. Perhaps, the courtyard was used as a temporary residence during these intervals of time, between the "biological" and "social" death.

McAnany (1998:281) describes both the representation and physical structures built to house the remains of royal ancestors as a "*super-residence.*" Such 'super-residences' can be metaphorically defined as an *axis mundi*. However, more recently, McAnany (2010:177) argues that the construction of royal courts over the residence of one's ancestor was an early architectural tradition and that within hieroglyphically defined "regal courts" or seats of power such a tradition diminished in importance.

Eppich (2007) proposes that sequential burials from M14-14, express a narrative overview of an elite family at El Peru-Waka. At Los Pisos Courtyard written evidence of ancestors and descendants is quite rare, therefore the archaeology, especially the burials and their locations, may provide a small glimpse into a narrative of the burgeoning and enduring dynastic history of La Milpa.

Temporary Royal Residence

The interior space or superstructure of Building 15 was not investigated but its location, size and the large quantities of high quality of molded stucco suggest that it was an elegant element in the complex. It has been noted that most often elite non-residential architecture is adorned with ornamental sculpture (Smith 1950, 1962; Arnold and Ford 1980; Pollock 1980). Excavations revealed a two-tier platform construction with an outset and a superstructure at the summit (Figures 5.95 and 5.96). The first tier most likely dates to the Early Classic period (Figures 5.65 and 5.96). This building contained at least two to three rooms and may fall within the range structure category. Its location and elaborate decorative elements are indicative of pomp and ceremony rather than residential intent though. For example, as previously mentioned Dr. Inomata has suggested that such a building could have been a receiving hall, where the La Milpa ruler sat in full view on a throne to welcome the royal court and other dignitaries during times of high ritual. Structure 9, the largest structure in the courtyard definitely falls within the range structure category and may have served a residential/administrative capacity.

Although Structure 9 was not penetrated it is the largest and most complex of the four buildings. According to Harrison (2003) complexity of form, a large number of rooms, growth by addition, windows, evidence of alteration, bed "benches" and mass production kitchens are indicative of a residential function. However the term "residence" continues to remain problematic. Harrison (2003:177) makes a distinction between residence and "residents," the former indicating permanent and the latter temporary residence. Temporary residence according to Harrison (1970:230) means "residence during the daytime only or for a few days, while continuous residence implies permanent habitation."

Only Royal families occupy loci designated as permanent residence according to Harrison's definitions. Temporary residences varied in use, function and occupants (evidence of food consumption such as ceramic serving and individual vessels could establish temporary residence). While, a permanent residence is defined the presence of sleeping accommodations in addition to material remains of other activities, e.g., food consumption, ritual (Harrison 1970:232).

Based on Postclassic ethnohistorical data from the Yucatan documented by Bishop Diego de Landa (Tozzer 1941:85-86) visitors attending ceremonies were often housed in the front rooms of houses, while the back rooms were reserved for the permanent residences. The front and back room arrangement is know as the "tandem plan" (Harrison 1970). It probable (based on size) that Structure 9 was an elaborate "tandem plan" range structure with at least two rows of rooms and it is clear this building was a member of both the Los Pisos Courtyard and of Plaza A. It defined the

Courtyard's eastern border making the group a discrete entity while simultaneously defining the western periphery of Plaza A. Str. 9 exhibits a dual or "Janus" orientation (the eastern façade facing Plaza A while the western façade faces the private courtyard). The western row of rooms probably served as a private setting for residential use, while the eastern façade was for public use. Therefore Str. 9, in all likelihood, had several doors on both sides, with both eastern and western facades in concurrent use. I would be inclined to believe that this structure served for more temporary residents and/or administrative purposes.

The Los Pisos Courtyard may have been used and functioned as a temporary residential complex for the rulers of La Milpa during times of high ritual. At the site of Quirigua Ashmore (1981a: 450) identifies the pairing of public-ritual zones with elite-residential areas. Therefore the two can and often coexist. The courtyard can be viewed as an important political/religious component of the ceremonial epicenter of La Milpa. Therefore, the Los Pisos Courtyard gained its importance during the Late Preclassic and reached its prominence during Late/Terminal Classic period, however, its use, function, and meaning shifted through time.

Terminal Classic Period (A.D. 780-850/900)

The occupation and activities at La Milpa are more than a bit elusive during the Terminal Classic period. This is mostly due to the inability to separate Late Classic ceramics from Terminal Classic ceramics. For Bey (*et al.* 1997: 249), the Terminal Classic period is not seen as a homogenous pan-lowland phenomenon, but rather a term

that characterizes the final post-monumental occupation of Maya centers. Hammond and Tourtellot (2004:288), present a very narrow period for the Terminal Classic at La Milpa, "…we do not know whether we have a Terminal Classic or not. If the period is held to begin in A.D. 800, we probably do; if in A.D. 830, possibly not." For Sagebiel, (2005:755) La Milpa Late Classic III ceramics are indicative of the final period of occupation that begins with the setting of Stela 7, and continues into the mid-ninth century. Undoubtedly chronological periods are based upon and defined by the contents of the material record, therefore, the dates for the Terminal Classic may be expanded or contracted, especially when those contents become better defined through fine grain analysis (Fred Valdez, personal communication October, 2012).

At Tikal the Terminal Classic period is marked by the absence of traditional leadership, but with the continued occupation and Classic period life-ways (Moholy-Nagy with Coe 2008). It was during the Terminal Classic period, that many sites in the Three Rivers Region are depopulated. There is also evidence of termination deposits at sites throughout the region indicating the political demise of the area and perhaps even large-scale abandonment of the Three Rivers Region (Clayton *et al.* 2005; Houk 2000). A similar pattern is evident throughout the Maya lowlands, for example at Tikal Moholy-Nagy with Coe (2008) describes settlement patterns similar to Middle Preclassic times with sparse populations dispersed throughout the landscape.

Recently, a number of Fine Orange ceramic sherds were recovered from Courtyard 100 just east of Structure 21. Although 2σ calibrated age ranges of, A.D. 895-1040 and A.D. 890-1020, are associated with Courtyard 100 the dated material was

recovered from a "problematic deposit" that has evidence of post-abandonment remains (Houk 2010; Moats and Nanney 2011; Zaro and Houk 2012). Nevertheless, this deposit according to Zaro and Houk (2012) indicates that people remained active within Plaza B during the Terminal Classic period. Additional calibrated radiocarbon dates, 2σ calibrated age range of A.D. 690-900, from Plaza B come from a cache beneath Str. 22-Sub and Structure 27, part of Courtyard D, also has Terminal Classic construction activity based on a 2σ calibrated are range of A.D. 890-1030 date. It is therefore probable that La Milpa Core (or at least some areas) remained in use after A.D. 900.

An elite residential group just north of the site center has Terminal Classic and Postclassic components (Deanna Riddick, personal communication 2012). Blue Creek and other parts of the PfB may also have been occupied until A.D. 950-1000 (Sullivan and Valdez 2004). Based on excavations and interpretations of the LMCP, it is reasonable to assert that some form of occupation at La Milpa may have endured into the 10th century but under an absent authority and rulers. However, Sagebiel argues that LMC was probably abandoned by A.D. 900. She notes that a smattering of Fine Orange wares as an indication that perhaps La Milpa was occupied past the A.D. 830 date.

Hammond (*et al.* 2000) argue that the use and maintenance of Plaza A as public space ended before A.D. 900. For Hammond (*et al.* 2000) the construction of a small Yucatecan style dwelling, Str. 86, with Tepeu III (but mostly Postclassic) ceramics within Plaza A is indicative of an altered use of the main plaza space by the Terminal Classic period. Some interpret such features as efforts to terminate the authority of the royal court. For example, Joyce and Weller (2007) note that squatter deposits located within

palace precincts during the Terminal Classic may be considered as active repudiation of authority and in some cases resistance against existing political authority. Therefore, Str. 86 may indicate a contestation and subversion of political authority at La Milpa during Terminal Classic times. McAnany (2010:196) argues for a mass mobilization renouncement of authority during the Late/Terminal Classic period. This rejection of natural authority may have been influenced by the expansion of Mexican religious and mercantile practices into the Maya region (McAnany 2010:198).

Nevertheless, there is evidence for construction in Plaza A, the repaving of the North Ballcourt and the patio north of the Los Pisos Courtyard. Sagebiel (2005) also notes the presence of Late Classic III sherds associated with the setting of Stelae 7 and Str. 5, and a small pyramid between Strs. 1 and 2. According to Hammond, (*et al.* 1996:88) Structure 5 underwent alterations, including the removal of the lower part of the axial western stair and the construction of a platform extending out to Stelae 7, during the Terminal Classic period. Hammond (*et al.* 1996; Hammond and Tourtellot 2004) also mention a sealed Phase V deposit in Str. 5, consisting of a burned jar rim dating to the Terminal Classic period and Fine Orange sherds. A vaulted room was constructed on the western façade of Str. 1 during the Terminal Classic period. Hammond and Tourtellot (2004: 296) maintain that an Early Classic stela was enshrined within this late addition (Str. 199).

Occupation and construction was also observed in the periphery northwest and northeast of Plaza A (Hammond *et al.* 1998: 833; Hammond *et al.* 2000: 41; Sagebiel 2005). Str. 21 in Plaza B was still under construction; it lacked both a staircase and

superstructure and exhibited a rough masonry construction, however now it appears that it was in the middle a major renovation (Hammond *et al.* 1998: Zaro and Houk 2012). It looks like the entire area between Plazas A and B, including the northwest and north of Plaza A, was being redeveloped when La Milpa was abandoned (Hammond *et al.* 1998; Hammond *et al.* 1996). Sagebiel (2005) also notes that some of the water control and agricultural features around the La Milpa Core may still have been in use during the Terminal Classic. Such a grand renovation program, including the setting of stelae and construction of agricultural features, provides evidence for the continued power of kingship at La Milpa, at least during the first part of the Terminal Classic.

The most significant construction within the La Milpa Core occurred in the South Acropolis, in the royal palace. Even though the northern part of the South Acropolis was constructed during Late Classic II times, it is asserted that the southern half was constructed during LC III times and was still under construction when the area was finally abandoned (Sagebiel 2005:757). Of particular interest in terms of the reorganization of the South Acropolis is the infilling of Str. 38 and its three thrones. During the last modification, the main entrance was reoriented from north to south, toward a new throne located in Str. 39 (Hammond *et al.* 1998:834). A copal and pinewood termination ritual; was documented by Hammond and Tourtellot (1999:2) as part of infilling process of Str. 38. The carbonized wood remains generated a 2σ calibrated age range of A.D. 790-850. This date supports Hammond's argument for the abandonment of La Milpa prior to A.D. 900.

Zaro and Houk (2012) propose a gradual abandonment processes, making it possible for the ruling classes to gather their personal items and move them to their next residence. Modification and renovation projects were underway but unfortunately the diminishing political clout of the rulers of La Milpa had finally dissipated, as did the ongoing projects. Zaro and Houk (2012) propose a much later date for Tepeu 3 ceramics perhaps into the10th century. Therefore a later date for the abandonment date is proposed for La Milpa, particularly in the Plaza B area.

Excavations at the Los Pisos Courtyard produced Terminal Classic ceramics intermixed with Late Classic indicating occupation at La Milpa extends into the Late Classic III period. It appears that Str. 14 (or at least one of the rooms) was purposely infilled. The single room of Str. 15 may have been infilled as well. This corresponds to the infilling that occurred in the South Acropolis and in the southern plazas during the abandonment of La Milpa (Hammond *et al.* 2000; Zaro and Houk 2012). Structure 14 may have been in the process of renovation when the final abandonment occurred (see Chapter 5). Hammond (*et al.* 1996) notes that the axial staircase of Str. 9 and Str. 8 overlay the last plaza floor, indicating that their final form dates to the Terminal Classic period. Sagebiel (2005:756) observed that the last repaving of the patio floor at Los Pisos Courtyard occurred during the LC III. Additionally, the midden behind (north of) Str. 14 contained strictly Tepeu III ceramic contexts and so did the topsoil surface near Str. 15 (Sagebiel 2005:683).

Significant amounts of ceramics were recovered from the axial staircase of Structure 14 and on the western façade of Str. 15. The total number of sherds (body, rims

and bases) analyzed for form was 9,428. Four thousand, eight hundred and eighty (52%) of these sherds came from the axial staircase and base of Str. 14 and the axial staircase, and southeast corner and southern facade of Str. 15. As previously stated the deposit on Str. 14 were quite fragmentary, however, on Str. 15 more refitting was possible and there was evidence of burning activity on the southeast corner of the building. This behavior is interpreted "terminal offerings" as part of ceremonial object-sacrifice conducted at the moment of a structure's abandonment or to deactivate a building by covering and blocking access to buildings or entire sites (Clayton *et al.* 2005; Coe 1959:94). Coe (1959:94; 1965a) has described such deposits as "exposed offerings." Such termination rituals speak to the slow abandonment process that is proposed for La Milpa.

One complete vessel (Tinaja Red water jar) was located on the southern façade of Str. 15, with additional jar and bowl rim sherds. They were comparatively larger than other sherds recovered from other excavations in the courtyard. The presence of a whole ceramic jar recovered from the first platform tier on the southern façade of Str. 15 indicates that their stratigraphic position was unmixed with collapsed construction. Such deposits can also be interpreted as de facto refuse.

Jars may have been used for special rituals (Figure 5.87). For example, Craig (2010) notes the ritual importance of large jars (*ollas*) and their depiction on ritual courtly scenes and perhaps their use to hold specialized beverages like *chicha* or *balché.* Trachman (2007) notes a dedicatory cache of water jars at Agua Lluvia dating to the Late/Terminal Classic period. Craig (2010) discusses the ceremonial practices and the ritualizing of important features at the site of San Bartolo and how water jars may have

been part of the ritual tool kit used in the execution of water rituals (Craig 2010: 211). Tozzer (1941:162-163) observes that, during the festival celebrated in the month of Zip "to appease the gods and to turn aside the anger which they would have against them and their sowings", the priests conducting the ceremony each had a pitcher of water. Note 850 (Tozzer 1941:163) states the following:

> The four gods in Tro-Cortesianus 74b, each with his hand in a great jar, may represent the four Chacs as rain gods. In the same Codex (30a) God B and a woman are emptying jars of water in some ritual connected with rain. See also 21a, 62a, and Dresden 74.

A small ceramic lip plug (Figure 6.37) was also recovered from within the deposit on the southeast corner of Str. 15. A fragment of a small incensario of a human face with appliqué was recovered form the eastern axial staircase of Str. 15 (Figure 6.46). Three obsidian blades visibly stacked one above the other was also recovered from the eastern central region of the staircase (Figure 6.33). Such implements were, in all likelihood, used in or symbolically represent bloodletting rituals. It is presumed that the blades were bundled together in some kind of perishable textile that held them as a single offering or cache. These are all elements, particularly the burning, often associated with ritual termination deposits (Garber 1986:117; 1989:9).

Post-Classic (A.D. 900-1500)

Although there is not much evidence for the use of the Los Pisos Courtyard during this period, at least four lithic tools dating to the Postclassic period were recovered from the courtyard. Three are basic flakes with side notching, while the fourth is an

intricate bifacially flaked knife (Figures 6.20 and 6.21). These items may have been dropped by hunting parties passing through the courtyard during Postclassic times. Although the LaMAP encountered and documented Postclassic ceramics in the Los Pisos Courtyard (Sagebiel 2005), none were recovered during my three years of excavating there. Hammond and Bobo (1994) illustrate extensive Late Postclassic monument veneration at La Milpa. The veneration activity mostly took place in Plaza A. However, it is not clear how and if the Los Pisos Courtyard fits into Postclassic veneration observed by Hammond and Bobo. A very late radiocarbon date, uncalibrated 440± B.P., with a 2σ calibrated age range of A.D. 1400-1450, from the terrace of Str. 13 may be an indication that Postclassic veneration may have also taken place at the Los Pisos Courtyard, or at least Postclassic activity. There is concrete evidence of Postclassic occupation right outside the courtyard (east) in Plaza A, Tourtellot House. This sort of occupation is interpreted as individuals failing to use the space for its intended purpose (Smith 2003:19).

Chapter 10: Discussion and Conclusion

> What did it take for a powerful and wealthy head of household to extend his power base to an entire village and to transform that village into a central, political capital? (McAnany 2001:146-147)

Innovation

While both the LaMAP and the LMCP conducted extensive excavations and mapping, the Classic overburden significantly limited the scope of La Milpa's Late Preclassic occupation and configuration. It was originally believed Late Preclassic occupation was reserved to the North Group (including the Los Pisos Courtyard) and nearby Reservoir B. However, it is now clear, that Late Preclassic occupation extended into the southern plaza area, in Courtyard D (Zaro and Houk 2012). Sagebiel (2005) notes paving episodes throughout the Plaza A and the limited presence of Late Preclassic architecture. Late Preclassic architecture within the site core is documented in Temple 1, Str. 5, and Courtyard D (Zaro and Houk 2012). The paucity of Late Preclassic architecture has made it especially difficult to make interpretations regarding the role that the Los Pisos Courtyard played in the development of the central precinct. Nevertheless, excavations conducted by the author produced adequate data to make interpretations based on comparisons with other sites and views concerning the structure of Maya society.

For example, Ashmore (1981a: 450) proposes the following: "The emergence of architecturally elaborate centers in the Preclassic correlated with the public extension of

elite household ritual (i.e., ancestor or dynastic celebrations)." It is probable that Los Pisos Courtyard was an elite household that expanded its ritual practice from a private to public realm during the Late Preclassic period. As such, kingship emerged from the compounds of wealthy families ("first founders") that became engrossed in engaging "with the cosmos and establishing a ritual axis mundi" (McAnany 2001:145).

Conversely, Freidel (1981a: 380) observes, "the first substantial lowland public buildings…were not places of residence." At the sites of Tikal, Dzibilchaltun and Cerros public buildings were reserved for public rituals. For Freidel, (1981a: 380) Maya centers evolved from "public shrines dedicated to community deities rather than out of household shrines associated with individual families." The rituals, however, were replications of domestic rituals. Freidel (1981a: 380) argues that communal rituals are more effective in terms of universalizing concepts and symbols that provide ritual integration above the local level. It is possible that during the Late Preclassic, the Los Pisos Courtyard was an open plaza ritual space, where people could experience social interaction within a strategically prescribed setting. An argument can be made here, that the Los Pisos Courtyard platform, initially served as a ritual public arena with the other established Late Preclassic architecture in the site core (Plaza A). Similar transformations are present at the sites of Tikal, Copan, and Uaxactun. Perhaps, La Milpa can be viewed as developing in similar fashion.

The first ritual at Los Pisos Courtyard transpired of with the burial (Burial 1) of an important member of the community. The second mortuary ritual, while intimately connected, appears to have taken place sometime after the burial, and is identified as

ritual-reentry. During this re-entry ritual, the cranium and femurs, of the individual where removed. As previously discussed, this is a form of ancestor veneration ritual mostly found in elite context and used to elevate the status of the personage. Consequently, the Los Pisos Hillock was paved and more than likely converted into a formal platform, perhaps half the Classic platform size. Subsequent rituals, Burial 2, termination ritual of Str. 1-1, and rituals associated the ceremonial hearth took place on this open ritual platform.

Inomata (2001a) asserts that rulers in pre-modern societies held two roles because they were political leaders laden with symbolism. Rulers played a significant role as a symbol of the integration of society on the one hand, while simultaneously embodying supernatural beings that made him/her not only different but created a distance from most members of society (Geertz 1977; Houston and Stuart 1996; Inomata and Houston 2001; Sahlins 1985). At the site of Monte Albán, Joyce (2009) decribed how elites endorsed themselves as religious specialists or mediators between commoners and the sacred. This pattern is certainly part of Maya society (Freidel 1981b; A.G. Miller 1986; Schele and Miller 1986) and may have taken place at the Los Pisos Courtyard, a place where nobles led and organized some of the most important public (and later private) rituals.

The innovation of a ritually charged place and the activities conducted within it constructed strong social memories that bound people to the rulers, but at the same time contributed to an increasing separation of noble and commoner identities (see Joyce 2009:38). Through time the Los Pisos Courtyard and the memories created there were co-opted for elites to communicate social differentiation and power probably by the Early

Classic, and a well-entrenched tradition was further institutionalized during the Late Classic period.

It is argued that in Maya society, the built environment (altered landscape and architectonic features) associated with ritual, particularly ancestor veneration rituals, creates status differences that are viewed as sanctified, and therefore socially accepted by the community (Brown and Garber 2005). It is also proposed, that public architecture and defined sacred space are physical manifestations that are constituted and used by emerging elite to perpetuate a new ideology of order, to legitimize status differences.

Lucero (2003, 2006) argues that Classic Maya rulers acquired and maintained political power through the replication and communal expansion of domestic rituals of ancestor veneration and dedication and termination rituals. Traditionally these rituals consisted of dedication and termination liturgy, renewal ceremonies or ancestor veneration rites (see Mock 1998; Lucero 2003, 2006; McAnany 1995). McAnany (2001:147) asserts that the early emphasis on ancestors provided a link between the present and the cosmological "beyond and before" across the Maya time-space continuum. The most striking transformation occurred by the end of this expansion, during the Late Classic (A.D. 550-850), when royal families directly associated themselves with the divine (see Lucero 2003, 2006). Through public re-enactment of traditional rituals, rulers associated themselves with the supernatural realm and are accepted as holders of controlled knowledge (Lucero 2003).

The replication and communal expansion of household rituals, particularly ancestor veneration, occurred much earlier, perhaps during the transition between the late

Middle Preclassic and Late Preclassic (see Adams 1991:134). However, at the sites of Ceibla and Cival, public plaza ritual is present prior to Mamom times (Takeshi Inomata, personal communication 2013). Therefore, it was certainly in place by the Late Preclassic period and further expanded during Classic period times (Lucero 2003, 2006; McAnany 1995, 2001; Walker and Lucero 2000). Politically manipulated ancient Maya ritual activities exhibit striking similarities with domestic household rituals. Thus, it can be argued that household rituals played a key role in the early development of hierarchization; it was through the politicization of domestic ritual in a public arena that a major shift occurred in Maya ideology.

I propose that the Los Pisos Courtyard may have served as a public ritual platform within Plaza A, that was defined as a sacred space during the Late Preclassic period (400 B.C. – A.D. 250). It is conceivable that during the Late Preclassic period this space served as a natural open ceremonial platform that was later transformed into a formal platform. It has been verified that both Plaza A, and the Los Pisos Courtyard were contemporaneously in use and developed during the Late Preclassic period. Plaza A during this time may have functioned as a locale for aggregation, with Milperos watching and engaging in the rituals taking place on the Los Pisos Hillock, and in later times a formalized platform (see Brown 2003; Brown and Garber 2005). It was within these ritual plazas, that public integrative community rituals were conducted. Such settings promoted a form of social interaction that establishes differences between those performing and those viewing, while simultaneously constituting a community identity. Elites, or people of higher status, implemented and legitimated their social status and

power with the creation of this place where a social memory was innovated and solidified during the Late Preclassic and Protoclassic periods.

Hierarchization

During the Early Classic period it appears that platform significantly increased in size, perhaps double its Late Preclassic dimensions. A major filling episode is documented in the north and northwest region of the courtyard. It is during this time that both the south and north areas of the courtyard were paved. The current courtyard configuration began to take form and construction activity ceased in the center of the platform and moved to the margins of the platform. Two buildings date to this time period. Str. 13 Sub-1 is located on the southern end of the courtyard, and Str. 15 Sub-1 is located on the western margin of the courtyard. Although Str. 9, located on the east side of the courtyard, was not excavated it is possible that an earlier phase of this building was present during Early Classic, creating a triadic arrangement (Figures 5.109 and 5.110).

Str. 13 Sub-1 appears to have been a structureless platform. Such platforms are typically believed to have functioned at ritual performance platforms. The courtyard configuration during this time would have permitted a larger number of people within the space. Performances may have taken place on Str. 13 Sub-1, with a number people present within the courtyard space. However, during this time it was only a certain segment of the population that entered and occupied this setting. While it is completely probable that visual access from Plaza A continued to exists, the increase in size made it possible for a certain group of people to be social and physically distinguished. Creating

a differential space from which the elite could profess status difference that legitimated their authority. This interpretation corresponds to the sociopolitical organization of La Milpa during this time (e.g., the setting of at least seven stela). The dedication of stelae, particularly those bearing long count dates and hieroglyphic texts, is one of the first indicators of institutionalized kingship (McAnany 2001).

During the Late/Terminal Classic period the courtly activities and practices, specifically rituals within the Los Pisos Courtyard, were no longer open for public viewing. This exclusivity in turn served as a way to socially separate and create significant disparities between nobles and non-elite. The courtyard was transformed into a private space that may have served as a temporary residence/commemoration complex where now at least three important individuals (Burials 1, 2, and 3) were interred. Inomata (2006a) notes that the Classic Maya engendered various forms of spaces for performance some of which were more restricted locales for elite interaction. The Los Pisos Courtyard and its architectonic ambience were a potent factor in supporting such eminence and the political identity of the elite (compare Rapoport 1982: 60-61, 78-79).

Hendon (2000:44) argues that social distinctions in Classic Maya society were created through spatial segregation. Space was manipulated to create differential knowledge. The clandestine nature of the Los Pisos Courtyard may have produced valued cultural knowledge; that could be converted into symbolic capital and political power for the elites (see Bourdieu 1990:112-121). Only the most important political players had access and were privy to the numinous activities taking place in the Los Pisos

Courtyard. The population at large was no longer integrated in the creation of place and social memory at this locale.

It was during Late/Terminal Classic period that the rulers of La Milpa invested a great deal of effort in ceremonialism, evident in the mass construction effort in the ritual epicenter (North Group) and throughout the site of La Milpa. The continued use of this place also necessitated significant architectural modification over time, particularly during the Late Classic period, requiring a large investment in labor and resources reflecting aspects of social order (see Brown and Garber 2005). The fixity of Los Pisos Courtyard, in sheer size and durability, is representative of "monumental time" and the process of hierarchization. For McAnany (2010:156) such inscriptions on the landscape produce a social memory of hierarchy that is uncontestable. This monumental construction was visible and present in everyday life and may have communicated aspects of a dominant ideology however it was only accessible by a certain segment of the community—the highest echelons.

The appropriation of the Los Pisos Courtyard would have ascribed new meanings onto this built space. Joyce (2009:44) perceived a similar phenomenon at Monte Albán. He argues that the Main Plaza at Monte Albán no longer served as the place where communal identity signaled inclusion and celebration; what Turner (1979:470) defines as "communitas, the mutual confrontation of human beings stripped of status role characteristics-people, just as they are, getting through to each other…" Space can be constrained through the use of partitions and inner courtyards (see Harrison 2003); at the Los Pisos Courtyard it was vertical and monumental constraints (see Yaeger 2003),

through the mass construction program of the Late/Terminal Classic period. While the built environment reflected and reproduced social distinctions, the continued use of place and monumental construction may have served as mnemonic devices to invoke the social memories created during earlier times (Preclassic period and Early Classic periods).

La Milpa, like other sites in the Maya region, is set on a north-south axis (see Ashmore 1991; Houk 1996). Although, the construction of La Milpa was influenced by the natural topography, this location was chosen over similar hills. Tourtellot *et al.* (1999) noted that the region consists of higher altitudes over 220 masl, therefore, the La Milpa Centre Hill was chosen for its broadness and north-south alignments that afforded the north-south site orientation. The foundations for the north-south axis template are not clear at La Milpa. There is evidence that the North Group, Str. 1 Str. 5, and the Los Pisos Courtyard were established in the Late Preclassic, however, it is not known if Late Preclassic architectural manifestations are present in the South Acropolis. They are present in the south plaza area, in Courtyard D (Zaro and Houk 2012).

In any case, by the Late Classic period, this template is in place and institutionalized signifying the power La Milpa rulers were asserting in the region (Houk 1996). During the Late Classic, La Milpa was in the process of expressing its newfound prominence in the area through a site-planning template that communicated the wealth and power of its commissioners. Classic Maya rulers harnessed a north-south axis site-planning template to geographically place themselves and their families within the cosmos (Ashmore 1989). The North Group at La Milpa follows this pattern with highly visible, imposing temples and structures.

The Los Pisos Courtyard is located within the North Group of La Milpa, where public ritual, especially those rituals devoted to the veneration of the ruler's lineage, was enacted (see Ashmore 1989:272). It is proposed that the Los Pisos Courtyard served as one of the most important monuments within the central precinct. It can be argued that the North Group played an important role in uniting local and foreign people across all social status with rituals. Perhaps the Los Pisos Courtyard played an important component that afforded the seclusion needed for private ritual display among elites.

For example, Houston (1992:66) demonstrates how a glyph from Ceibal, *ilah,* "that is, the visitor 'saw' or witnessed the ritual," indicates the presence of a ruler or his proxy at most likely key dynastic rituals celebrated by a local lord. Miller (1986) also documents a similar phenomenon on the Bonampak murals, Mexico. She interprets the presence of foreign nobility in a private ritual setting. Therefore, the Los Pisos Courtyard may have acted as an axis mundi for local and foreign elites, a location where social relations produced and reproduced the social and political identities of the elites.

The Los Pisos Courtyard may also have served as an architectural mechanism of control, a political "technology" that hierarchically organized space to control the individual body (Lawrence and Low 1990:485). Such technologies are a "structural" organization of space where the "docile body may be subjected, used, transformed and improved" (Foucault 1975: 198). Echoing Foucault (1975), Inomata (2001a) differentiates between modes of visibility within contemporary and traditional societies– where modernity is considered a society of discipline and antiquity a society of spectacle. Foucault's use of Panopticon design for prison cells illustrates the emphasis modern

states place on surveillance, where subjects are visible to the eye of power. Visual openness for Foucault (1975) constitutes a fundamental element for exploring how power and the state operate.

Although the Maya fall within the "traditional" spectrum presented by Foucault, his arguments may be extended here. The North Group, including the Los Pisos Courtyard, was vertical space bordering and enclosing Plaza A. As such, the Los Pisos Courtyard may have been designed as a panoptical device, where spatial *canalization* of everyday life could be achieved (see Rabinow 1984:252). The occupants of the Los Pisos Courtyard had full view of the people and their actions in Plaza A. Therefore, the Los Pisos Courtyard may have further shaped and altered the social interaction occurring with Plaza A.

The Los Pisos Courtyard was originally consecrated during the Late Preclassic and became a conduit between ancestors and descendants. This locale, ancestors and social memories became a resource for the descendants where performances of solidarity with the deified ancestors and reinvestments through renovation and modification were conducted (see Hutson 2010). Hutson (2010: 118) believes this sort of interaction forged interpersonal relations between people and buildings, whereby buildings become materialized agents used by leaders to claim legitimacy and engender asymmetrical relationships. Thus, "buildings have agency because a new leader cannot create and demonstrate legitimacy as the successor for the group's heritage without renovating the temple" (Hutson 2010:119). The built environment, ancestors, and memories are a medium for the reproduction of social power; or what Giddens (1984) calls allocative and

authoritative resources. These resources were harnessed to create forms of power into strategic settings of social interaction by knowledgeable and historically contingent agents—the elite.

A Persistent City and State

While some of the renovations and construction episodes at the Los Pisos Courtyard were perfunctory, most imposed drastic change. While these modificatios concurrently maintained and advance the meaning of this place. At La Milpa the long and standing tradition of kingship continued with the setting of Monument 7 on A.D. 780. U'kay was the last known ruler of the site (Grube 1994; Hammond and Tourtellot 2004). At least five stelae (7, 4, 5, 8 and 14) that either depict *U'kay* or are stylistically dated to his reign were dedicated after A.D. 780 (Grube 1994:224). The dedication of these stela demonstrates that a kingship leadership role was still in place at La Milpa during the end of the Classic and commencement of the Terminal Classic periods. It is quite possible that the last major construction episodes occurred at La Milpa under the direction and reign of *U'kay*.

At La Milpa, the present architectural configuration took form during the Early Classic period and persisted until the end of the Late Classic period, during which significant transformations in the form of ritual ideology, leadership and identity took hold of all Milperos. However, the lack of discrimination between Late Classic and Terminal Classic ceramics makes it impossible to discern the major changes that occurred at La Milpa and for that matter the entire region. Therefore, I am proposing that the Los

Pisos Courtyard remained part of the ritual nexus for the rulers of La Milpa until its gradual abandonment sometime during the Terminal Classic period and the end of traditional Classic leadership (see Ashmore 2000; Inomata and Webb 2003).

The link, both social and spatial, between the Los Pisos Courtyard and Plaza A indicates that both spaces remained important enough to command repairs in the form of repaving episodes (Sagebiel 2005). Plaza A, as mentioned in Chapter 4 Table 4.1, may have held up to 87% of La Milpa's population. It is probable that the ritual performance and regal dramaturgy continued near the Los Pisos Courtyard "in order to maintain a well-populated realm" (McAnany 2010:193) even during the Terminal Classic period.

Why La Milpa was abandoned has remained one of the most elusive and persistent questions—and one that may never be fully understood. Hammond and Tourtellot (2003b: 6) clearly communicate their puzzlement: "We have no evidence for invasions, destruction or any other explanation for why, in the middle of a major royal building program the palace, temple, several other major structures in the core, and an ambitious overarching cosmic landscape design, it all fell apart." They are completely correct, however the abandonment processes appears to be a very gradual one. Zaro and Houk (2012) argue that the abandonment process did not take place in the face of sociopolitical upheaval, rather the political clout of the Terminal Classic period rulers waned until they could no longer hold on to the little political power they had. Tourtellot (*et al.* 2003:11) unceremoniously attributes one of the possible reason for the fall of La Milpa to the intensive and extensive building projects of the Late/Terminal Classic period: "Or did the vast scope of their simultaneous construction projects actually bring

on the collapse, perhaps through the starvation or opposition of their laborers, or even because the elite were actually celebrating that momentous and ineluctable event?"

As new data from PfBAP excavations at La Milpa filter through, new interpretations pertaining to La Milpa's early commencement and final abandonment are becoming clearer. For example, a larger Late Preclassic occupation that extended into Courtyard D, and monumental architecture comparable to the architecture at Cuello and Cerros. New clues to the abandonment of the site have also come to light. The rapid abandonment of La Milpa occurred between A.D. 830 and 850, during which "La Milpa went out with a bang, but a silent one" (Hammond and Tourtellot 2003b: 6). It is now proposed that La Milpa was slowly and gradually abandoned during intermittent construction and renovation (Zaro and Houk 2012).

Zaro and Houk (2012) argue that La Milpa's architectural boom during the Late/Terminal Classic period may not have been as momentous as once proposed. This argument is largely supported by the Late Preclassic expansion of La Milpa into the southern courtyard area (Courtyard D, Str. 27). The present research supports this thesis; however, I would like to point out that these architectural foundations are also reflections of the political and social foundations of La Milpa. The history of this site may run parallel to the history of Cerros and Cuello during Late Preclassic times.

La Milpa did not emerge out of thin air during the Late Classic period; it has a long and complex history full of shifts and transformations, and acts as a microcosm for exploring Maya civilization. This is not to say that all Maya centers have the same trajectory as La Milpa. Each Maya city has its own historicity in which it developed and

evolved; diversity in organization of Maya centers has long been recognized. However, using other Maya sites as the comparative yardstick allows the examination of functional parallelisms that are present in the lowlands.

La Milpa plays a fundamental role for exploring the formation and development of social and political institutions within Maya civilization. Additionally this site provides a setting from which one can explore the social and political organization of a persistent city of the Terminal Classic, but one that finally came to an end. We now know that the end of the Terminal Classic period in the Maya lowlands and the end of Classic Maya civilization occurred for different reasons throughout the lowlands, therefore exploring the history of La Milpa in "…its own *cultural* context in its own right, as a unique set of cultural dispositions and practices" (Hodder 1986: 6) is of utmost importance if we are ever to grasp a basic understanding of the Classic Maya transition and transformation into the Postclassic.

On a grander scale, the Los Pisos Courtyard can be seen as an architectural and social element that was a vital setting during the transformation from village to center. A setting from which one can chronicle transformations in the social and political lives of the occupants of La Milpa through time. And it is through a diachronic investigation of such architectural complexes, that archaeologists may be able to attain some answers (not all) as to why people were constructing these magnificent cities.

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